3rd Semi-Annual

Early Action Compact Progress Report

Austin-Round Rock MSA

Prepared on behalf of the Austin-Round Rock MSA Clean Air Coalition by:

The Capital Area Planning Council in coordination with the Early Action Compact Task Force and the CLEAN AIR Force

Submitted to:

Texas Commission on Environmental Quality
U. S Environmental Protection Agency, Region VI

June 30, 2004

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1. Introduction

This progress report is intended to fulfill the Austin/Round Rock Metropolitan Statistical Area (A/RR MSA) Early Action Compact (EAC) commitment under Section I. A. 2. Reporting: "In order to facilitate self-evaluation and communication with EPA, TCEQ, stakeholders, and the public, the region will assess and report progress towards milestones in a regular, public process, at least every six months, beginning in June 2003." The format of this report will follow informal guidance developed by EPA's EAC Policy Guidance Workgroup and forwarded by Michael Morton, the EPA Region 6 EAC Coordinator. The report provides information on the A/RR MSA Clean Air Action Plan (CAAP) schedule and list of additions or deletions of emission reduction measures. Also this report describes progress that the area has made in completing technical analyses for attainment demonstration, list of meetings conducted by the stakeholders, schedule for adoption and implementation of State regulations and schedule of public meetings and/or hearings that have or will be conducted prior to SIP submittal.

This progress report constitutes only a brief summary of the activities that have been taking place over the past six months in furtherance of the objectives of the Clean Air Coalition (CAC) and the CLEAN AIR Force, and the commitments made in the EAC. Additional information in the form of meeting summaries and reports is available upon request to the Early Action Compact Task Force, the CLEAN AIR Force or the Capital Area Planning Council.

Background

Local governments, community and business leaders, environmental groups, and concerned citizens in Bastrop, Caldwell, Hays, Travis and Williamson Counties (A/RR MSA) are committed to improving regional air quality. The MSA is acting now to assure attainment and maintenance of the federal 8-hour standard for ground-level ozone. Using the Early Action Compact (EAC) Protocol, the Austin/RR MSA submitted a Clean Air Action Plan (CAAP) to the Texas Commission on Environmental Quality (TCEQ) that provides clean air sooner, maintains local flexibility and can defer the effective date of a possible nonattainment designation.

EPA issued the *Protocol for Early Action Compacts Designed to Achieve and Maintain the 8-Hour Ozone Standard* (the Protocol) on June 1, 2002 and revised it in November 2002. The Protocol provides the framework for a voluntary commitment to develop and implement an emission reduction plan that assures attainment of the 8-hour ozone standard by 2007 and maintenance at least through 2012.

A key point of the EAC is the flexibility it affords areas in selecting emission reduction measures. Based on State Implementation Plan (SIP)-quality science, signatories choose the combination of measures that meet both local needs and emission reduction targets. On December 18, 2002, the cities of Austin, Bastrop, Elgin, Lockhart, Luling, Round Rock, and San Marcos; the counties of Bastrop, Caldwell, Hays, Travis, and Williamson; TCEQ and EPA, entered into an EAC for the MSA. The EAC can be accessed at: http://www.cleanairforce.org/EAC Final Revision11-7-02.pdf.. This compact commits the region to developing and implementing a CAAP in accordance with the following milestones:

EAC/CAAP Milestones	
June 16, 2003	Potential local emission reduction strategies identified and described
November 30, 2003	Initial modeling emissions inventory completed
	Conceptual modeling completed
	Base case modeling completed
December 31, 2003	Future year emissions inventory modeling completed
	Emissions inventory comparison and analysis completed
	Future case modeling completed
January 31, 2004	Attainment maintenance analysis completed
	Schedule for development of further episodes completed
	One or more modeled control cases completed
	Local emission reduction strategies selected
	Submission of preliminary CAAP to TCEQ and EPA
March 31, 2004	Final revisions to modeled control cases completed
	Final revisions to local emission reduction strategies completed
	Final revisions to attainment maintenance analysis completed
	Submission of final CAAP to TCEQ and EPA
December 31, 2004	CAAP incorporated into the SIP; SIP adopted by TCEQ
December 31, 2005	Local emission reduction strategies implemented no later than this date
December 31, 2007	Attainment of the 8-hour standard

All milestone documents may be found at:
http://www.capco.state.tx.us/capcoairquality/news.htm

Should an EAC area miss a milestone at anytime during the agreement, including attaining the 8-hour standard by 2007, they will forfeit their participation and rejoin the 8-hour implementation process in progress, and will be subject to the same requirements and deadlines which would have been effective had they not participated in this program, with no delays or exemptions from EPA rules. Local governments, community and business leaders, environmental groups, and concerned citizens in the Austin//RR MSA have shown their commitment to improving regional air quality by acting to assure attainment and maintenance of the federal 8-hour standard for ground-level ozone in their area through their EAC. In accordance with the commitments made in the area's EAC, the Austin//RR MSA prepared and submitted a Clean Air Action Plan (CAAP) for the region to demonstrate attainment of the 8-hour standard in the area by 2007 and

maintenance of the standard until at least 2012. The CAAP can be accessed online at the Capitol Area Planning Council (CAPCO) web address described above. During the January 2004 through June 2004 reporting period all of the milestones listed above for the period were met.

2. Local Area Progress on Emission Reduction Strategies

TCEQ Proposed SIP Revisions Based on the CAAP

The A/RR MSA CAAP was submitted to the EPA and TCEQ on March 31st 2004. The CAAP listed 13 "State Assisted Measures" which would apply to all or most jurisdictions in the A/RR MSA and would require action by the TCEQ to enable implementation. In addition a number of Locally Implemented Measures were self-selected by the EAC signatories, with each encouraged to implement at least three in addition to continuing O_3 Flex commitments. Jurisdictions could choose to enhance an existing O_3 Flex measure.

Summary of Recommendations by TCEQ

At the TCEQ Commissioner's Work Session on April 30, 2004, the commissioners discussed possible revisions to the State Implementation Plan (SIP) and several potential rule revisions requested by Texas EAC areas. The Commission scheduled to take action on these items at the July 14, 2004 Commissioners' Agenda. On June 25, 2004, the Executive Director of the TCEQ filed recommended SIP revisions for the July 14, 2004 Commissioner's Agenda that included some, but not all, of the state rule changes to 30 TAC Chapters 114 and 115 the Austin/RR MSA CAAP requested.

For the A/RR MSA EAC SIP Revision, the pending recommended revision to the SIP consists of an 8-hour ozone attainment demonstration for the area based on the EAC CAAP submitted to TCEQ by the area in March 2004. The CAAP contains results of photochemical modeling and technical documentation in support of the attainment

demonstration. As a result of these analyses, and at the request of the Austin local governments, the TCEQ staff recommendation includes state rule revisions implementing a revised state vehicle inspection and maintenance (I/M) program in Travis and Williamson Counties; a new rule allowing jurisdictions to enforce heavy duty diesel idling restrictions within their boundaries through an enforcement agreement with TCEQ; and, for all 5 counties in the Austin/RR MSA, revisions to the state rules regulating degreasing, Stage 1 vapor recovery, and cutback asphalt operations. In addition, TCEQ proposed a new low VOC gasoline container rule, similar to that proposed in the Austin/RR MSA CAAP, that will apply statewide. The entire SIP Revision documentation with all appendices is available at the TCEQ website (http://www.tnrcc.state.tx.us/oprd/sips/june2004eac_EDrec.html#rules).

TCEQ staff did not include the following requested state rules from the Austin/RR MSA CAAP in the June 25, 2004, proposed rulemaking:

- Autobody Refinishing controls
- Commute Emissions Reduction Program
- Low RVP gasoline
- Dry Cleaning regulations
- Point Source Emissions Balancing/Offsets

Due to time constraints under the EAC, the fact that these rules were not proposed likely means they stand little chance of being adopted in time to be included in the SIP revision submitted to satisfy the December 2004 EAC milestone.

TCEQ Commissioners and TCEQ staff have indicated two of our region's requested state actions for the SIP will be addressed outside the rulemaking process, as follows:

- Voluntary Power Plant Agreements, implemented by permit change as opposed to state rule, no later than 12/31/05
- TERP commitment – TCEQ Commissioners instructed TCEQ staff on May 17 to prepare a TERP allocation proposal to ensure TERP grant funds result in SIP reductions. It is unclear at this time what this allocation policy will be and how it

will impact our region's CAAP commitment of 2 tpd under TERP. Comments at the May 17 Work Session indicated TCEQ may alter that commitment, depending on what funds the region is allocated. TCEQ plans to complete the allocation policy some time this fall.

Locally Implemented EAC Measure Status

Locally Implemented EAC measures build on those in the O_3 Flex Agreement. More detailed descriptions, and commitments from participating agencies, appear in Appendix 5-2 of the CAAP. Signatories interpret and implement these measures according to their needs and abilities. With the exception of the Transportation Emission Reduction Measures (TERMs), the CAAP neither quantifies these reductions nor includes them in its modeling.

In addition to the self-selected measures, the major fuel supplier to the Austin/RR MSA began supplying Ultra Low Sulfur Gasoline since the summer months of 2003.

Signatories and Participating Agencies

Locally implemented emission reduction measures were committed to by the signatories to the EAC Agreement:

Cities:

City of Austin, City of Round Rock, City of San Marcos, City of Bastrop, City of Lockhart, City of Luling, City of Elgin

Counties:

Bastrop County, Caldwell County, Hays County, Travis County, Williamson County

The status of individual programs for each county or city was acquired through a reporting survey. For this reporting period the status of the programs were grouped into four categories:

- No Action Taken
- In Planning Stages
- Partially Completed
- Fully Implemented

Additional information about the level of implementation and schedule of implementation were also requested. Survey forms with data are provided with the attachment.

Results of the report are summarized below.

- Responses received by all major signatories
    - Status for 88 programs (86%) obtained.(total of 102 EAC programs)

[1]***As of June 30th 2004***

- No Action Taken for 21% of the programs
- In Planning Stages 14% of the programs
- Partially Completed 17% of the programs
- Fully Implemented 48% of the programs

Figure 2.1 graphically illustrates the status of the Austin-RR EAC programs.

Note that this status is based on the 86% response rate and does not represent emission reductions achievements. Also note that some of the EAC programs are reported in the O3 Flex report as well. The O3 Flex semi-annual report accompanies this report.

[1] The status of the program is estimated from the EAC survey (counting only reported programs).

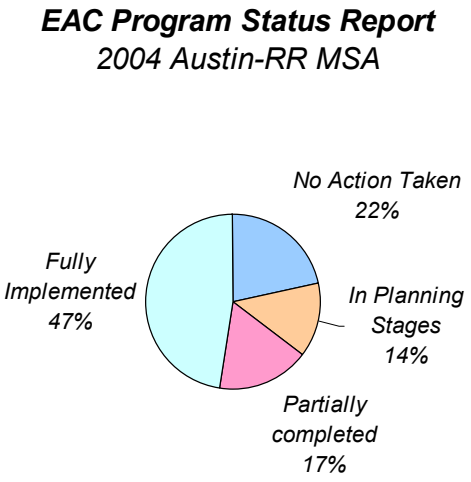

Figure 2.1 2004 Austin-RR EAC Program status based on 86% response rate

3. Technical Analysis for Attainment Demonstration

EAC Clean Air Action Plan (CAAP)

The Austin/Round Rock MSA CAAP which was completed and sent to EPA and TCEQ on March 31, 2004, is based on a modeled attainment demonstration for 2007. The analysis for growth indicated that the attainment status will be maintained through 2012. The EAC milestone reports documenting each of the technical analysis activities performed to support the attainment demonstration are included as appendices to the CAAP and can be accessed on the CAPCO web site.

A brief discussion follows on several of these technical support activities completed during the reporting period. In addition, a short discussion is included on ozone monitoring efforts to provide more complete measurements of ozone levels in the area for assisting the area in improving future modeling and assessment efforts.

Air Quality Monitoring for 2004 Ozone Season in the Austin-RR MSA

In addition to the two regulatory ozone monitors operated in the Austin area by TCEQ, three additional ozone monitors are being operated during the 2004 ozone season under contract to CAPCO to provide supplemental area-wide coverage. Data from all three sites can be accessed on-line from TCEQ's Monitoring Operations Web Site. As of the current date there haven't been any recorded violations of the NAAQS (8-hour ozone standard) at any of the Austin/Round Rock monitors. Figure 3.1 shows Austin/Round Rock 2004 Ozone season summary statistics as of June 30th 2004.

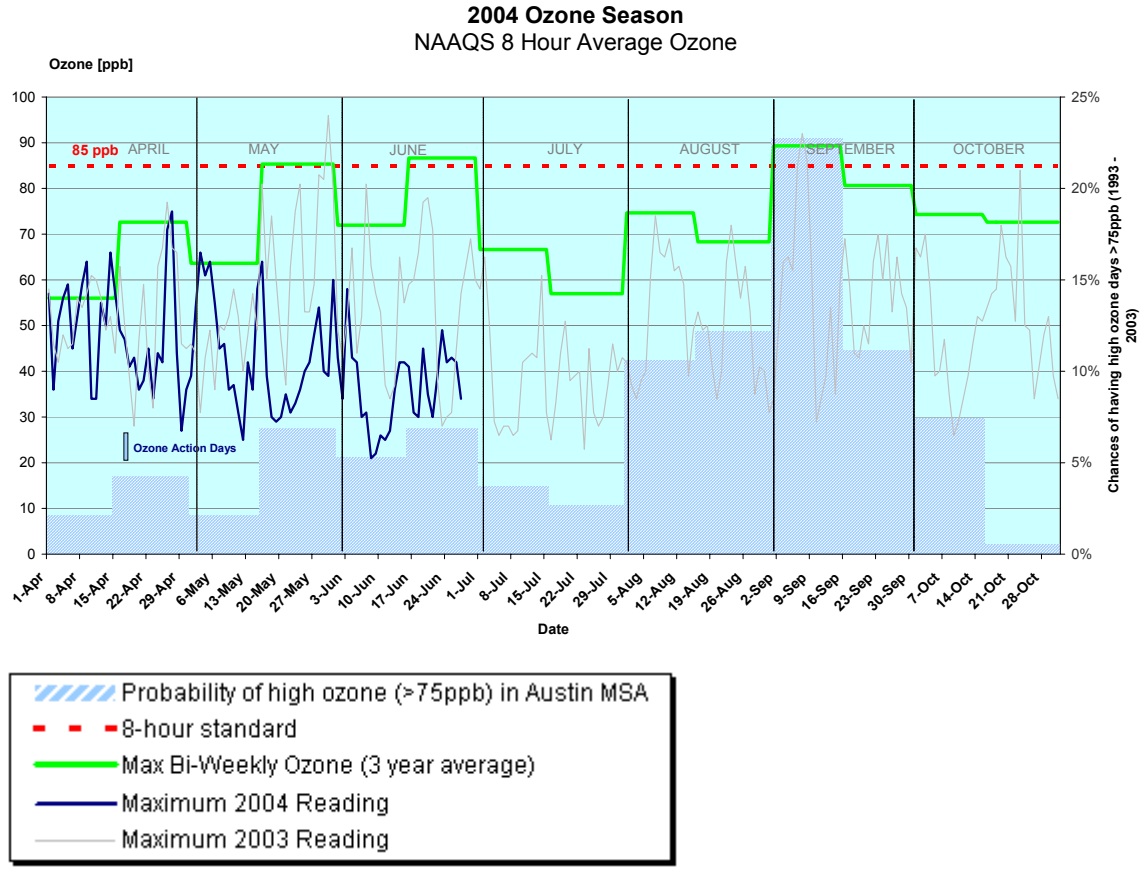

Figure 3.1. Austin/Round Rock MSA [2]2004 Ozone Season.

[2] 2004 data source for ozone data: Texas Commission on Environmental Quality (TCEQ) website: www.tceq.state.tx.us

A final report of 2004 ozone season monitoring will be available by the end of 2004 or in early 2005 (upon end of 2004 season).

Attainment maintenance analysis

The anticipated future growth has been evaluated for the region to ensure that the area will remain in attainment of the 8-hour standard for the time period 2007 through 2012 and 2015. This evaluation included analysis of population growth and its effect on on-road and non-road mobile emissions and area sources, and new and planned new point sources.

Control strategy projections are estimates of future year emissions that also include the expected impact of modified or additional control regulations. We determined future scheduled regulations, whether at the federal, state, or local level, and applied them to sources in our area. Fuel switching, fuel efficiency improvements, improvements in performance due to economic influences or any occurrence that alters the emission producing process may also affect future year emissions. These should all be reflected in the projections through the future year control factor, emission factor, or in some cases, by adjusting the activity growth forecast. Control factors and emission factors vary by source category and are continuously being revised and improved based on field and laboratory measurements. In many cases, it will also be necessary to account for multiple programs, which affect the same source category. Therefore, expected controls are calculated for each action and applied appropriately on the stated dates. Other programs are complex and determining appropriate control factors or adjustments to activity forecasts for specific source categories is not straightforward. For example, initiatives to reduce energy use, such as the EPA Green Lights program, are aimed at reducing electricity demand. This, in turn, is tied to reductions in emissions from individual utility boilers. Emission caps or allowance programs set overall constraints on future emission levels, but this must also be translated into reductions at individual units in most cases. For trading programs, a simplified approach may be to constrain emissions at individual units to the level used to calculate the emission budget. More complex approaches would

examine how individual units will respond – by controlling emissions or purchasing credits. Figures 3.2 and 3.3 shows 2007 – 2012 years projections for NOx and VOC emissions respectively

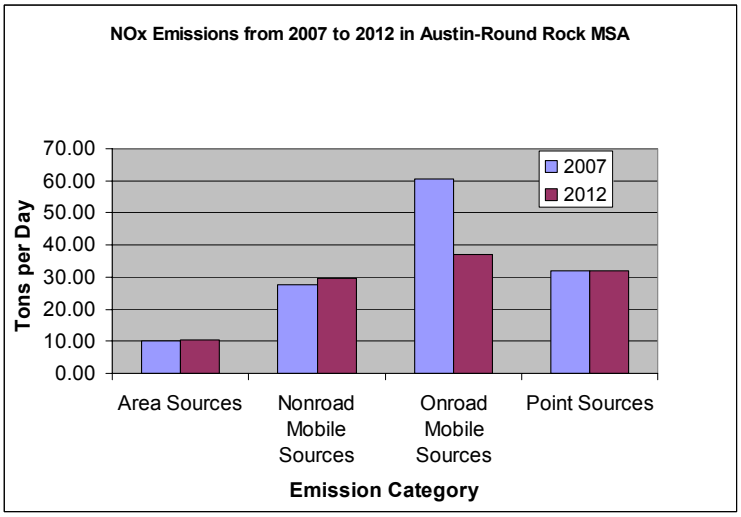

Figure 3.2 NOx emission projections for Austin-Round Rock 2007 till 2012.

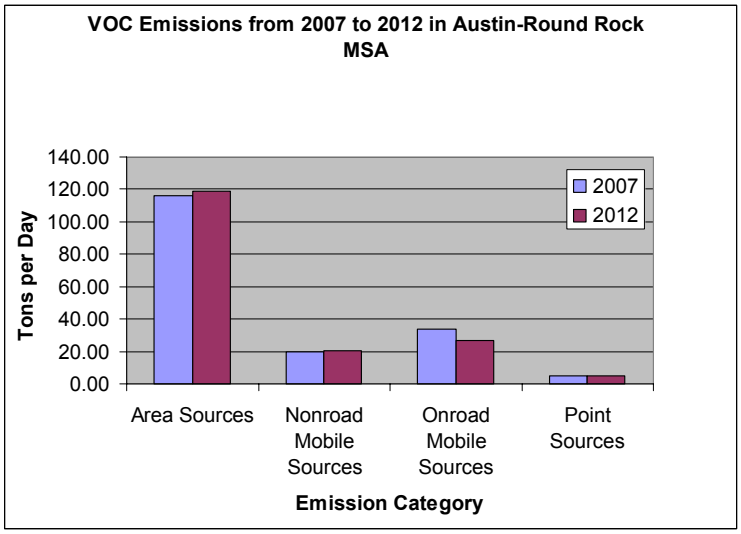

Figure 3.3 VOC emission projections for Austin-Round Rock 2007 till 2012.

CAPCO and CAMPO staff will analyze air quality and related data and perform necessary modeling updates annually. In addition to the data sources used for the above analyses, staff may add information from The Central Texas Sustainability Indicators

Project (CTSIP). The CTSIP is a nonprofit organization that tracks 40 key indicators (e.g., water pollution, air quality, density of new development) that show the economic, environmental and social health of our MSA. The results of all these analyses will be reported in the June semi-annual reports beginning in June 2005.

Details about this analysis can be found in the CAAP Milestone document *Attainment Maintenance Analysis*, prepared by EAC task force, January 2004.

Emission Reduction Strategies

Various emission reduction techniques can effectively reduce ozone precursors. Emission reduction methods employed nationally (e.g., automotive emission reductions), statewide and regionally (emission reductions from EGUs) benefit the Austin area, but more reductions are needed to ensure clean air for the region by 2007. Ozone precursors include Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOC) from vehicles, electric utilities and other industrial, commercial and residential sources that burn fuels.

The EAC provides the mechanism for local emission reduction measures to be considered and recommended for inclusion in the State Implementation Plan. This study provides the description for each of the local control measures under consideration. This final selection of measures is based on review and approved by local stakeholders and officials and on technical demonstration showing attainment of the 8-hour ozone standard by December 31, 2007. Table 3.1 shows the list of emission control strategies and corresponding emission reductions proposed in the CAAP.

		COUNTY					
Emission Reduction Measure	**Pollutant**	**Bastrop**	**Caldwell**	**Hays**	**Travis**	**Williamson**	**Total**
Inspection and Maintenance (I&M)	NOx	n/a	n/a	n/a	2.16	0.73	**2.89**
	VOC	n/a	n/a	n/a	2.80	1.04	**3.84**
Idling Restrictions on Heavy Diesel	NOx	0.01	0.00	0.01	0.13	0.03	**0.19**
	VOC	n/a	n/a	n/a	n/a	n/a	**0.00**
Commute Emission Reduction Program	NOx	0.01	0.01	0.02	0.17	0.06	**0.27**
	VOC	0.01	0.01	0.02	0.19	0.06	**0.30**
Stage I Vapor Recovery Requirement Change	NOx	n/a	n/a	n/a	n/a	n/a	**0.00**
	VOC	0.16	0.19	0.63	2.83	1.08	**4.88**
Low Emission Gas Cans	NOx	n/a	n/a	n/a	n/a	n/a	**0.00**
	VOC	0.09	0.05	0.19	1.74	0.52	**2.60**
Degreasing Controls	NOx	n/a	n/a	n/a	n/a	n/a	**0.00**
	VOC	0.07	0.04	0.26	5.47	0.54	**6.38**
Autobody Refinishing Controls	NOx	n/a	n/a	n/a	n/a	n/a	**0.00**
	VOC	0.00	0.00	0.00	0.03	0.01	**0.05**
Cutback Asphalt	NOx	n/a	n/a	n/a	n/a	n/a	**0.00**
	VOC	0.07	0.05	0.06	0.61	0.24	**1.03**
Low Reid Vapor Pressure Gas	NOx	n/a	n/a	n/a	n/a	n/a	**0.00**
	VOC	0.11	0.05	0.17	1.74	0.81	**2.87**
TERP	NOx	0.10	0.04	0.19	1.19	0.48	**2.00**
	VOC	n/a	n/a	n/a	n/a	n/a	**0.00**
Power Plant Reductions	NOx	2.94	0.00	0.00	4.14	0.00	**7.08**
	VOC	n/a	n/a	n/a	n/a	n/a	**0.00**
TERMS	NOx	0.03	0.02	0.07	0.45	0.15	**0.72**
	VOC	0.04	0.02	0.07	0.54	0.17	**0.83**
GRAND TOTAL (REDUCTIONS) [TPD]	**NOx**	**3.10**	**0.07**	**0.29**	**8.26**	**1.44**	**13.15**
	VOC	**0.55**	**0.40**	**1.41**	**15.95**	**4.48**	**22.78**
Total Anthropogenic Emissions [TPD]	**NOx**	**13.52**	**7.82**	**21.14**	**98.27**	**27.35**	**168.10**
	VOC	**8.40**	**17.67**	**12.19**	**100.93**	**27.75**	**166.94**
Percent Reduction [%]	**NOx**	**22.9%**	**0.9%**	**1.4%**	**8.4%**	**5.3%**	**7.8%**
	VOC	**6.5%**	**2.3%**	**11.5%**	**15.8%**	**16.1%**	**13.6%**

Table 3.1 Austin-Round Rock CAAP Ozone precursor's emission reductions by county

Details about this analysis can be found in the CAAP Milestone document *Austin/Round Rock MSA Emissions Reduction Strategies* prepared by EAC task force, March 2004.

Modeling control cases

Modeling was performed to indicate the amount of reductions needed in the area. The model shows that up to 80% of ozone monitored locally has been transported from outside the area. Emission control strategies have been evaluated that will provide the Austin area with a margin of safety for attaining the standard. Control strategies assessed include a vehicle inspection and maintenance program, voluntary NOx reductions at local power plants beyond those already required by Senate Bill 7, implementation of the Texas Emissions Reduction Program (TERP), a commute program, VOC controls on area sources, transportation emission reduction measures (TERMS), and idling restrictions on

heavy duty diesel engines. The results from this analysis indicate that all of the emission control scenarios under consideration will facilitate Austin's progress toward maintaining attainment with the 8-hour NAAQS and reducing population exposure to ozone. Figure 3.4 represent one of the many cases of modeled reduction strategies. Table 3.2 summarizes ozone reductions and ozone response on different emission control stratifies proposed by CAAP.

Scenario	NOx reduction tpd	Share of the Category [%]	Share of the Total Man-Made Emissions Inventory [%]	VOC reduction tpd	Share of the Category [%]	Share of the Total Man-Made Emissions Inventory [%]	Ozone reduction Murchison ppb	Ozone reduction Audubon ppb
I&M only	3.19	11.3%	2.4%	4.19	14.2%	2.4%	0.35	0.35
Point sources only	7.08	22.0%	5.4%	0.00	0.0%	0.0%	0.52	0.26
TERP only	2.00	4.0%	1.5%	0.00	0.0%	0.0%	0.18	0.08
Area sources only	0.00	0.0%	0.0%	18.81	16.2%	10.8%	0.35	0.17
All measures	13.76		10.6%	24.43		14.0%	1.39	1.15

Table 3.2 Ozone response to selected CAAP reduction measures.

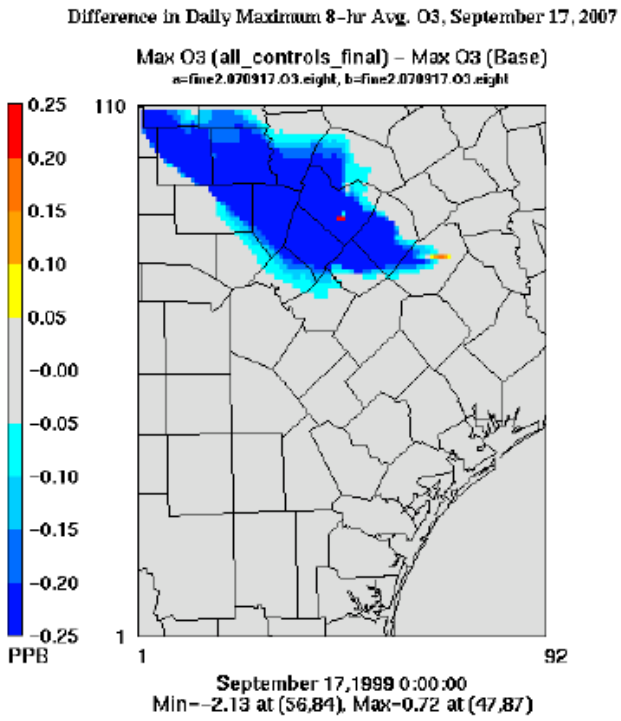

Figure 3.4. Difference in predicted daily maximum 8-hour averaged ozone concentrations on September 17 between the 2007 Future Case with no local controls applied and with all emission controls applied for the Austin area excluding low RVP gasoline, I&M in Hays County, and the commute program (package adopted for Austin's EAC).

More details about this analysis can be found in the CAAP Milestone document *Photochemical Modeling for Austin's Early Action Compact: Analysis of Emission Control Strategies for Ozone Precursors* prepared by UT Austin, March 2004.

4. Stakeholder Meetings

Early Action Compact Meetings

The table below details groups and venues that have come together for work on the Austin-Round Rock MSA Early Action Compact (EAC). The Clean Air Coalition (CAC) is comprised of elected officials in the MSA. A representative from each County and signatory City therein is represented in this coalition and they consider options and make recommendations to their respective elected bodies regarding the EAC and Clean Air Action Plan (CAAP) for our region. The Chair is Mayor Will Wynn of the City of Austin. The Early Action Compact Task Force (EACTF) is comprised of key staff from governmental and quasi-governmental agencies, such as the Lower Colorado River Authority, throughout the MSA. The EACTF coordinates stakeholder input from the stakeholder committees, reviews emission reduction measures and reports on CAAP issues to the CAC. The Chair of this task force is Cathy Stephens of the Capital Area Metropolitan Planning Organization (CAMPO), and it consists of approximately 30 members. The CLEAN AIR Force (CAF) Board is made up of businesses, local governments, environmental groups, neighborhood associations, and public interest groups. They meet quarterly to discuss clean air issues, including the CAAP, and the Chair is Mike Heiligenstein, Executive Director of the Central Texas Regional Mobility Authority. The CLEAN AIR Force Technical Advisory Committee (CAF TAC) is a sub-group of the CAF which comes together to discuss technical issues regarding air quality. The CAF TAC is chaired by Art Bedrosian, HNTB, and has approximately 35 members. Meetings for all of these air quality discussion and advisory groups are open to the public with meeting notices and agendas e-mailed to interested parties and posted on the respective web sites. Our region's EAC is also reviewed along with other EAC's during Near Non-Attainment meetings. These meetings are held quarterly to bring together regions that are facing non-attainment such as the Austin/RR MSA and the San Antonio MSA.

Beginning in late December, the CAAP was taken to each signatory's jurisdiction for approval. The Commissioners Court and City Council meetings represented below indicate jurisdictions that had not met before January 26th or wanted to re-visit the issue.

The following is the list of meetings and public outreach programs

Early Action Compact Meetings/Public Outreach (January 26 - June 28, 2004)

PUBLIC MEETINGS	DATE	LOCATION
EACTF Meeting	8-Jan	CAPCO Boardroom
San Marcos City Council	12-Jan	San Marcos City Hall
Bastrop County Commissioners Court	12-Jan	Bastrop County Courthouse
Clean Air Coalition Meeting	14-Jan	CAPCO Boardroom
Travis County Commissioners Court	20-Jan	Travis County Courthouse
CAF TAC Meeting	21-Jan	GACC Boardroom
Green Diesel Seminar	22-Jan	Holiday Inn, Austin
EACTF Meeting	22-Jan	CAPCO Boardroom
San Marcos City Council Meeting	26-Jan	San Marcos City Hall
EAC Meeting	2-Feb	CAMPO
EACTF Meeting	5-Feb	CAPCO Boardroom
CAF TAC Meeting	12-Feb	GACC Boardroom
EACTF Meeting	19-Feb	CAPCO Boardroom
NNA Meeting	20-Feb	TCEQ Offices
Clean Air Coalition Meeting	25-Feb	CAPCO Boardroom
CAF Board Meeting	3-Mar	GACC Boardroom
EACTF Meeting	4-Mar	CAPCO Boardroom
Legal Briefing re EAC	5-Mar	Travis County Exec. Office
EAC Meeting with TCEQ	10-Mar	CAPCO
Luling City Council Meeting	11-Mar	Luling City Hall
EACTF Meeting	18-Mar	CAPCO Boardroom
Bastrop County Commissioners Court	22-Mar	Bastrop County Courthouse
Williamson County Commissioners Court	23-Mar	Williamson County Courthouse
Travis County Commissioners Court	23-Mar	Travis County Courthouse
Bastrop City Council Meeting	23-Mar	Bastrop City Hall
CAF TAC Meeting	25-Mar	CAPCO RTA
Austin City Council Meeting	25-Mar	LCRA
Round Rock City Council Meeting	25-Mar	Round Rock City Hall
EAC/CAAP Press Event	29-Mar	Enviromedia

Early Action Compact Meetings/Public Outreach (continued)

PUBLIC MEETINGS	DATE	LOCATION
EACTF Meeting	1-Apr	CAPCO Boardroom
Ozone Season Kickoff Party	2-Apr	Enviromedia
EAC Meeting with TCEQ	9-Apr	CAPCO
EACTF Meeting	15-Apr	CAPCO Boardroom
Clean Air Coalition Meeting	21-Apr	CAPCO Boardroom
CAF TAC Meeting	22-Apr	CAPCO Boardroom
NW Austin Rotary Club Meeting	23-Apr	Balcones Country Club
NNA Meeting	29-Apr	CAPCO Boardroom
EAC Work Session with TCEQ	30-Apr	TCEQ Offices
Clean Texas Conference	3-May	Austin Convention Center
EACTF Meeting	6-May	CAPCO Boardroom
CAF TAC Meeting	27-May	CAPCO Meeting Room
EACTF Meeting	3-Jun	CAPCO Boardroom
CAF Board Meeting	8-Jun	GACC Boardroom
Clean Air Coalition Meeting	9-Jun	CAPCO Boardroom
NNA Meeting	11-Jun	CAPCO Boardroom
Meeting with TCEQ Commissioner White	11-Jun	TCEQ Offices
Meeting with TCEQ Commissioner Soward	15-Jun	TCEQ Offices
EACTF Meeting	17-Jun	CAPCO Library
Austin City Council Meeting	17-Jun	LCRA
Meeting with TCEQ Commissioner Marquez	21-Jun	TCEQ Offices
CAF TAC Meeting	24-Jun	CAPCO Boardroom

Early Action Compact Public Outreach (Press and Television)

PRESS/ADS – TELEVISION	**DATE**	**STORY**
KXAN	29-Jan	New Emissions Testing
KVUE	26-Mar	City council approves emission test
KVUE	29-Mar	Final Clean Air Action Plan
KXAN	29-Mar	Working towards cleaner air
News 8 Austin	29-Mar	Regional leaders approve clean air plan
News 8 Austin	1-May	Making your home energy efficient
KXAN Commercials	May – June	Ozone Season Air Quality Tips
PRESS/ADS - RADIO		
KLBJ-AM	29-Mar	Final Clean Air Action Plan
KGSR Commercials	May – June	Ozone Season Air Quality Tips
KROX	June	Ozone Season Air Quality Tips
PRESS/ADS - NEWSPAPER		
Austin American Statesman	30-Jan	Editorial – San Marcos' decision on auto emissions puts area plan into danger
San Marcos Daily Record	30-Jan	Opinion - Speaking of improved air quality, what about treatment plant stink?
Austin American Statesman	7-Feb	Exhaust testing retains support
Round Rock Leader	23-Mar	City Council to vote on emissions testing
Austin American Statesman	30-Mar	Regional leaders approve clean air plan
Daily Texan	30-Mar	Final Clean Air Action Plan
Austin American Statesman	3-Apr	Opinion – For statewide standards
Austin American Statesman	1-May	Commissioners balk on clean air plan
Austin American Statesman	1-May	Electric mower discounts begin
Taylor Daily Press	3-May	Local Sections
Austin American Statesman Ad	21-Jun	Clean Air Partners

5. Schedule for SIP Revision and Public Hearings

Schedule for Adoption and Implementation of State Regulations

The Table 5.1 summarizes schedule for adoption and implementation of state regulations

TASK	DATE(S)
EAC plans submitted to TCEQ	March 31, 2004
Summarize plans in prep for work session/Begin to draft rules/ *Continue working w/locals on outstanding issues*	April 1-16
Briefings	April 19-21
Work Session executive summary due	April 22
Commissioners Work Session - EAC plans presented for discussion	April 30
Draft and finalize rules and SIP narratives *Continue meeting w/locals*	May 3-June 24
Back-up filed with Chief Clerk's Office and posted on Web	June 25
Commissioners agenda - proposed SIP revision presented for approval to publish	July 14
Rules published in the Texas Register	July 30
Public hearings	*Aug 23, 24 & 26*
Close of Public Comment Period	*Aug 30*
Analyze comments, prepare final SIP revision packages including rules (if necessary)	Aug 30-Sep 24
Initial legal/management review	Sep 27-Oct 1
Initial Briefings	Oct 4-8
Final coordination meetings w/locals	*Oct 11-22*
Rules processing by Texas Register staff (if necessary)	Oct 25-29
Final internal review/sign-off	Nov 1-5
Pre-filing briefings	Nov 8-10
Back-up due to Chief Clerk's Office	Nov 12
Commissioners agenda - adoption SIP revisions presented for approval	Dec 1
SIP revision submitted to EPA	by Dec 31, 2004

Table 5.1 Working EAC SIP Timeline

Public Meetings and/or Hearings

The following summarize detailed info for the public hearings scheduled by the TCEQ regarding the proposed EAC SIP Revisions.

Monday August 23
2 PM
TCEQ - Room 254S
12100 Park 35 Circle
Austin, Texas

Tuesday August 24
10 AM
Longview City Hall Council Chambers
300 West Cotton Street
Longview, TX

Thursday August 26
10 AM
AACOG Board Room
8700 Tesoro Drive, Suite 100
San Antonio, TX

Note that these will be the hearings for all EAC SIP Revisions and rules.

6. Challenges Ahead/Next Steps

It has been extremely challenging in the time allotted for EAC development to accomplish the technical assessments required for a SIP-quality local clean air plan and at the same time bring stakeholders and government officials together to agree on acceptable emission reduction strategies. However, all EAC milestones have been met and the CAAP has been submitted to the TCEQ for their consideration and incorporation into the SIP. During this reporting period there has been much discussion between State and local partners in the EAC to add further definition to proposed emission reduction measures and to explore additional legal and political issues associated with each measure. While the draft SIP revisions posted on the TCEQ web site on June 25th for consideration at the July 14th Agenda do not include all the State Assisted Measures local elected officials requested in the CAAP submitted on March 31, local stakeholders remain optimistic that TCEQ Commissioners are committed to continue working with the region to find satisfactory alternative measures to begin addressing the issues the deleted State Assisted Measures hoped to address.

Strategies addressed in the CAAP but not included in TCEQ's SIP revision proposal include the Commute Emission Reduction and Emission Balancing measures. The intent of the Commute Emission Reduction strategy is to get local major employers (both private and government) engaged in actively pursuing activities which will reduce ozone precursor emissions equivalent to 10% of the emissions generated by employees in Single Occupant Vehicle commutes. This measure is based on the existing voluntary *Clean Air Partners* program. While all local efforts are being made to recruit new Clean Air Partners, a majority of the TCEQ Commissioners have committed to continue discussions to achieve a greater level of participation in the program, especially among state agencies.

The CAAP included the Emission Balancing measure to deal with the potential impact on the area's attainment status that major new sources of NOx emissions could have if emissions are not offset or evaluated for ozone impact on the local area. Discussions are

continuing at the staff level to explore new source permitting options to achieve the desired level of protection in the local area from new point source ozone precursor emissions, which could jeopardize the region's attainment status.

While local EAC signatories are concerned that the suite of proposed rules currently under consideration for proposal will not fully implement the Fair Share concept that guided our region's CAAP development, the region plans to continue to work with TCEQ to address the issues involved in the measures that have not been proposed as state rules and to meet the outstanding EAC milestones.

Of the rules currently under consideration there are still some issues that need to be considered to achieve maximum effectiveness of the control strategy. The primary strategy that will require careful attention to detail is the Vehicle Inspection & Maintenance Program. A vital part of I&M is the Low Income Repair Assistance and Accelerated Retirement Program (LIRAP), the funding for which is currently under budget review by TCEQ. It will be important to provide enough support to enable effective administration of this program, as well as, provide funding in sufficient amounts to encourage low-income owners of high emitting vehicles to get them fixed or replaced.

Another TCEQ program that the local area is counting on for significant NOx emission reductions is the Texas Emissions Reduction Program. As previously discussed, the TCEQ is currently reviewing their procedures for awarding TERP grants, in light of the amount of funding being applied for greatly exceeding the available funds. Among options being considered are different allocation schemes. If sufficient TERP funds are not allocated to the Austin/RR MSA, it will be impossible for the region to reach our target of 2 tons/day of NOx reductions for TERP projects.

Elected officials and stakeholders in the Austin/RR MSA will be closely coordinating with their TCEQ and EPA partners in the EAC to complete an acceptable SIP Revision necessary to meet the next EAC milestone for SIP submittal by December 31, 2004.

While numerous challenges have arisen during the EAC CAAP development process, all milestones have been met and the working relationships established between partners and stakeholders are expected to contribute to continued success of the program.

APPENDIX

EAC Reporting Forms

Reports Enclosed:

Cities:

City of Austin

City of San Marcos

City of Lockhart

City of Elgin

Counties:

Hays County

Travis County

Williamson County

City of Austin EAC Programs

PROGRAM STATUS for June 2004

EAC Emissin Reduction Measure	*No Action Taken*	**In Planning Stages*	**Partiality Completed*	*Fully Implemented*
Texas Emission Reduction Program (TERP)		8/04 implementation		
Texas Low Emission Diesel (TxLED) for Fleets			60% completed	
Transportation Emission Reduction Measures (TERMs)				X
Alternative Commute Infrastructure Requirements	X			
Drive-Through Facilities on Ozone Action Days	X			
• Use of electric or alternative fuels for airport GSE				X
• ABIA Airside Incentives for GSE use reduction				X
• Integrate alternative fuels into City's aviation fleet				X
• Operate alternative fueled ABIA surface parking lot shuttle buses				X
• Use existing ABIA alternative fuel infrastructure for off-site parking shuttle buses				X
Low VOC Striping Material				X
Tree Planting				X
Extend energy efficiency requirements beyond SB5 and SB7				X
Shift the electric load profile				X
Environmental dispatch of power plants				X
Low Emission Vehicles				X
Business Evaluation of Fleet Useage, Including Operations and Right Sizing				X
Commute Solutions Programs, may include				X
• Compressed Work Week				X
• Flexible Work Schedule				X
• Carpool or Alternative Transportation Incentives				X
• Employer Subsidized Transit				X
• Teleworking (full time)				X
• Teleworking (part time)				X
Direct Deposit				X
e-Government and/or Available Locations				X
Fueling of Vehicles in the Evening			60% completed	
Urban Heat Island/Cool Cities Program			60% completed	
Resource Conservation				X
Increase investments by Central Texas electric utility providers in energy demand management programs				X
Contract provisions addressing construction related emissions on high ozone days	X			
Ozone Action Day Education Program, includes:				X
Ozone Action Day Response Program				X

**Please indicate the level of implementation or planning schedule (month/year) where available*

City of San Marcos EAC Programs

PROGRAM STATUS for June 2004

EAC Emissin Reduction Measure	*No Action Taken*	** In Planning Stages*	** Partiality Completed*	*Fully Implemented*
Texas Emission Reduction Program (TERP)		X		
Transportation Emission Reduction Measures (TERMs)		X		
Low VOC Striping Material				X
Open Burning Restrictions				X
Tree Planting				X
Business Evaluation of Fleet Useage, Including Operations and Right Sizing		X		
Direct Deposit				X
e-Government and/or Available Locations			X	
Fueling of Vehicles in the Evening	X			
Resource Conservation				X
Ozone Action Day Education Program, includes:		X		
Ozone Action Day Response Program		X		

**Please indicate the level of implementation or planning schedule (month/year) where available*

City of Lockhart EAC Programs

PROGRAM STATUS for June 2004

EAC Emissin Reduction Measure	*No Action Taken*	** In Planning Stages*	** Partiality Completed*	*Fully Implemented*
Access Management				
Drive-Through Facilities on Ozone Action Days		50%		
Low VOC Striping Material				X
Tree Planting				X
Low Emission Vehicles				
Adopt-a-School-Bus Program				
Police Department Ticketing				
Commute Solutions Programs, may include				
Direct Deposit				X
Fueling of Vehicles in the Evening				X
Ensure emission reductions in SEPs, BEPs and similar agreements				
Ozone Action Day Education Program, includes:				
Landscaping voluntary start at noon on high ozone days (education program)				

**Please indicate the level of implementation or planning schedule (month/year) where available*

City of Elgin EAC Programs

PROGRAM STATUS for June 2004

EAC Emissin Reduction Measure	*No Action Taken*	** In Planning Stages*	** Partiality Completed*	*Fully Implemented*
Transportation Emission Reduction Measures (TERMs)		X		
Access Management		X		
Alternative Commute Infrastructure Requirements		X		
Expedited permitting for mixed use, transit oriented or in-fill development				X
Low VOC Striping Material				X
Open Burning Restrictions				X
Tree Planting			X	
Ensure emission reductions in SEPs, BEPs and similar agreements				X
Ozone Action Day Education Program, includes:				X

**Please indicate the level of implementation or planning schedule (month/year) where available*

Hays County EAC Programs

PROGRAM STATUS for June 2004

EAC Emissin Reduction Measure	*No Action Taken*	**In Planning Stages*	**Partiality Completed*	*Fully Implemented*
Texas Emission Reduction Program (TERP)	x			
Tree Planting	x			
Direct Deposit				x
e-Government and/or Available Locations	x			
Fueling of Vehicles in the Evening			x	
Resource Conservation	x			
Ozone Action Day Education Program, includes:			x	
Ozone Action Day Response Program	x			

**Please indicate the level of implementation or planning schedule (month/year) where available*

Travis County EAC Programs

PROGRAM STATUS for June 2004

EAC Emissin Reduction Measure	*No Action Taken*	** In Planning Stages*	** Partiality Completed*	*Fully Implemented*
Texas Emission Reduction Program (TERP)			x	
Texas Low Emission Diesel (TxLED) for Fleets				x
Transportation Emission Reduction Measures (TERMs)				x
Business Evaluation of Fleet Useage, Including Operations and Right Sizing			x	
Ozone Action Day Response Program		x		

**Please indicate the level of implementation or planning schedule (month/year) where available*

Williamson County EAC Programs

PROGRAM STATUS for June 2004

EAC Emissin Reduction Measure	*No Action Taken*	** In Planning Stages*	** Partiality Completed*	*Fully Implemented*
Texas Emission Reduction Program (TERP)	X			
Texas Low Emission Diesel (TxLED) for Fleets				X
Transportation Emission Reduction Measures (TERMs)			X	
Tree Planting			X	
Business Evaluation of Fleet Useage, Including Operations and Right Sizing	X			
e-Government and/or Available Locations				X
Ozone Action Day Response Program		X		

**Please indicate the level of implementation or planning schedule (month/year) where available*

3rd Semi-Annual Report: The Early Action Compact for the San Antonio Region

June 2004

Prepared by the Alamo Area Council of Governments

This document was reviewed and approved by the Air Improvement Resources (AIR) Technical Committee on June 14, 2004. It was subsequently presented and approved unanimously as a final document by the AIR Executive / Advisory Committees on June 23, 2004.

Final Document Due On or Before June 30, 2004

Title: 3rd Semi-Annual Report: The Early Action Compact for the San Antonio Region	**Report Date:** June 30, 2004
Authors: Natural Resources Staff	**Type of Report:** Semi-Annual or Biannual Report
Performing Organization Name and Address: Alamo Area Council of Governments 8700 Tesoro Drive, Suite 700 San Antonio, TX 78217	**Period Covered:** January – June 2004
Sponsoring Agencies Name & Address: Texas Commission on Environmental Quality 12100 Park 35 Circle Austin, TX 78753	**Approved by**:

Abstract:
Protocol for the Early Action Compact (EAC) stipulates that areas participating in the compact will assess and report their progress against milestones every six months. The Clean Air Plan for the San Antonio Metropolitan Statistical Area (MSA) is responsible for detailing and demonstrating the MSA's commitment to achieving and maintaining the 8-hour ozone standard through regional voluntary efforts. The implementation of the Clean Air Plan occurs through progress against prescribed milestones stipulated by the Environmental Protection Agency on a set timeline. Several milestones were accomplished from January 2004 to June 2004, such as the submittal of the Attainment Demonstration for the San Antonio Early Action Compact Region, updates to modeling analyses, selection of clean air strategies as required by the control strategy milestone, and on-going progress for the public involvement milestone. The progress against the milestones is discussed in the report.

Related Reports: 2nd Biannual Report: The Early Action Compact for the San Antonio Metropolitan Statistical Area	**Distribution Statement:**	**Permanent File:** Alamo Area Council of Governments, Natural Resources / Transportation Department
Number of Pages: 31	**Cost of Report:**	**Reproduction Cost:**

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Chapter 1 – Introduction

During the ozone seasons of 2000 through 2002, local air quality monitors in the San Antonio region recorded ozone levels above the concentrations allowed under the 8-hour ozone National Ambient Air Quality Standard (NAAQS). Moreover, in June of 2002, area monitors recorded some of the highest 8-hour and 1-hour ozone values on record since 1998[1]. Since US Environmental Protection Agency (EPA) guidance then suggested that the boundary of the Metropolitan Statistical Area be considered as the boundaries for new 8-hour ozone non-attainment areas, air quality planning has focused on Bexar, Comal, Guadalupe and Wilson Counties. These four counties are called "the San Antonio EAC region" in this document since they comprised the Metropolitan Statistical Area of San Antonio on December 9, 2002, the signing date of the Early Action Compact (EAC) for the San Antonio region. The local signatory governments to the EAC are within these four counties.

On April 15, 2004, the counties of Bexar, Comal, and Guadalupe were declared “nonattainment deferred” by the EPA. The designation occurred under the 8-hour average ozone NAAQS. The effective date of the nonattainment designation was deferred because the Clean Air Plan for the San Antonio region, developed under the EAC protocol, was effective and in force.

1.1 Clean Air Plan

The Early Action Compact protocol is designed to guide development and implementation of control strategies, including planning for near-term growth, in order to achieve and maintain the 8-hour ozone standard. This compact offers a more expeditious time line for achieving emission reductions than the EPA's draft 8-hour implementation rulemaking[2], while providing "fail-safe" provisions for the area to revert to the traditional State Implementation Plan (SIP) process if specific milestones are not met. In general, these early action plans will include all necessary elements of a comprehensive air quality plan, but are tailored to local needs and driven by local decisions. The EAC agreement signed by the EPA, the Texas Commission on Environmental Quality (TCEQ) and local elected officials is available online: http://www.aacog.com/cap/.

The Clean Air Plan embodies and documents the local planning created from the guidance provided by the EAC protocol. The Plan is a working document providing comprehensive planning for the ozone challenge before the four-county San Antonio

[1] On June 24, 2002, the CAMS 23 monitor, located near Marshall High School in San Antonio, recorded a 1-hour average ozone value of 126 parts per billion (ppb), an exceedance of the 1-hour ozone NAAQS. The most recent exceedance of the 1-hour standard prior to this date was 141 ppb recorded September 4, 1998 at CAMS 58 in Camp Bullis. Also on June 24, 2002, the CAMS 23 monitor recorded an 8-hour average ozone reading of 110 ppb, an exceedance of the 8-hour average ozone NAAQS. The most recent 8-hour reading prior to this date above 100 ppb was a reading of 110 ppb recorded September 4, 1998 at CAMS 58 in Camp Bullis.

[2] "Proposed Rule To Implement the 8-Hour Ozone National Ambient Air Quality Standard," June 2, 2003. Available online http://www.epa.gov/fedrgstr/EPA-AIR/2003/June/Day-02/a13240.pdf

EAC Region. Acceptance of the final Clean Air Plan requires the adoption of control strategies or methodologies for lowering ozone concentrations to acceptable levels. Proposed strategies undergo performance analyses in the photochemical model and are reviewed by staff from the Alamo Area Council of Governments (AACOG). Model results are then presented to, reviewed, and approved by the Air Improvement Resources (AIR) Committees of AACOG, the TCEQ, and the EPA.

1.2 Planning Process

The AIR Executive Committee of AACOG is the planning committee for air quality under the Early Action Compact for the San Antonio region and is charged with oversight and coordination of the development of the Clean Air Plan. The AIR Committees assess and report the region's progress at least every six months, with deliverables sent to TCEQ and the EPA. Public reporting of assessment and progress against milestone occurs at least once every six months during the regularly scheduled, meetings (scheduled on a monthly basis and open to the public) of the AIR Executive and AIR Advisory Committees of the AACOG.

The AIR Executive Committee's meetings satisfy the requirement in the EAC that planning meetings will be open to the public, with posted meeting times and locations. Every meeting of the AIR Executive and Advisory Committees is a public meeting, with notification of the meeting time and location as stipulated in the Texas Open Meetings Act. AACOG provides notice of each meeting to the Secretary of State for posting in the Texas Register, the County Clerk of Bexar County, and posts notice in AACOG's main administrative offices in a place readily accessible to the general public at all times for at least 72 hours before the scheduled time of the meeting. (Although the AIR Executive and the AIR Advisory Committees are separate committees, they typically hold joint committee meetings at least once a month. In each case, the notification process is as described above.)

The AIR Committee is pleased to engage with local citizens, the EPA and the TCEQ in the planning effort required to maintain the Clean Air Plan for the San Antonio EAC region. From the point of view of the AIR Committee, this Clean Air Plan is the continuation of years of effort and planning, which has been made possible through enabling funding provided by the Legislature of the State of Texas.

1.3 Semi-Annual Report

As required by EAC guidance, areas that are participating in early voluntary 8-hour air quality plans must assess and report their progress in achieving EAC milestones in a regular, public process every six months. This document will fulfill the requirement for the third semi-annual progress report written for the San Antonio EAC.

The milestones in this report which are described in the EAC are:

- Completion & updates of emissions inventories as outlined in section b), Emissions Inventory;
- Completion & updates of modeling as outlined in section c), Modeling;
- Post-attainment demonstration and plan updates as outlined in section e), Maintenance for Growth;

- Continuing public involvement in the planning process will be conducted as outlined in section f), Public Involvement. This is in addition to the public reporting conducted at least once every six months, as outlined above;
- Identification and description of local control strategies under current **consideration** for inclusion into the area's local clean air plan, including those analyzed in modeling.

In addition, Lydia Wegman, Director of Air Quality Strategies and Standards Division of the US Environmental Protection Agency, signed a memo providing guidance on the content required in the biannual reports due in June and December of 2003. Through this memo, the EPA requires certain elements be incorporated into the report.[3] The reporting requirements given in both the EAC protocol and the Wegman memo have been organized in the following chapters of this report. These additional elements include:

- **Stakeholders: Roles and Responsibilities**

- **Evaluation and Selection of Emission Reduction Measures**
  A list of control measures still under consideration for adoption by the local area as part of the March 2004 submission;
  Likely implementation dates for the local control measures that are under consideration;
  Current assessment of the amount of emissions reductions expected to be achieved through implementation of the local control measures; and
  The geographical area in which each control measure is anticipated to apply.

- **Public Outreach Activities**
  Continuing public involvement in the planning process will be conducted as outlined in section f), Public Involvement.

- **Update on Modeling and Technical Planning Activities**
  Post-attainment demonstration and plan updates as outlined in section e), Maintenance for Growth

The March 2004 submission of the Attainment Demonstration for the San Antonio EAC region contained the finalized list of emission reduction measures and implementation dates agreed upon by the local EAC signatories. Updates to the other items noted above are contained in this report.

[3] "Early Action Compacts (EACs): The June 16, 2003 Submission and Other Clarifications," Lydia N. Wegman, Director Air Quality Strategies and Standards Division, April 4, 2003. US Environmental Protection Agency, Research Triangle Park, NC 27711. Available online: http://www.epa.gov/ttn/naaqs/ozone/eac/6-16-2003_eac_milestone_memo.pdf

Chapter 2 –Stakeholders: Roles and Responsibilities

2.1 Stakeholders

Stakeholders for the Clean Air Plan include local governments, businesses, industries, schools and citizens within the San Antonio EAC region. The AIR Committee enables area governments and industrial groups to participate in addressing air quality concerns. The AIR Committee is comprised of the Executive/Advisory, Technical, and Public Education Committees.

2.1.1 AIR Executive Committee

The AIR Committee makes recommendations regarding actions and policy to the local governments represented by the AIR Executive Committee membership. The AIR Executive Committee is the planning committee for air quality planning under the Early Action Compact in the San Antonio region.

The AIR Executive membership represents the major government organizations within the San Antonio Metropolitan Statistical Area (SA/MSA) as the SA/MSA was defined at the time the EAC was signed, December 9, 2002. Membership has been extended to similar local governments brought into the San Antonio Metropolitan Statistical Area through US Census redesignations of the SA/MSA boundary in 2003.

The AIR Executive Committee comprises local elected officials and representatives of major government organizations from the four counties of Bexar, Comal, Guadalupe and Wilson. County governments are represented by elected County Judge or County Commissioner and municipal governments are represented by an elected official serving as Mayor or City Councilperson. Other entities serving on the AIR Executive, as designated by the bylaws, have one representative on the committee. The following table lists agencies for AIR Executive memberships. [4]

Table 2-1 AIR Executive Member Agencies

Air Improvement Resources Executive Member Agencies	
Bexar County	City of San Antonio
Comal County	City of New Braunfels
Guadalupe County	City of Seguin
Wilson County	City of Floresville
Greater Bexar County Council of Cities	Alamo Area Council Of Governments
San Antonio / Bexar County Metropolitan Planning Organization	

2.1.2 AIR Advisory Committee

The AIR Advisory Committee acts as a liaison between the AIR Executive Committee and public and private citizens. Membership of the AIR Advisory Committee includes the AIR Executive Committee. The committee is comprised of representatives from local governmental entities and industrial groups within the San Antonio MSA and includes representatives listed below.[5]

- Business representatives
- Environmental Groups
- Education agencies

[4] Bylaws, Air Improvement Resources Committee of the Alamo Area Council of Governments, available Dec. 4, 2003 online as: http://www.aacog.com/air/WhatWeDo/AIRCO Bylaws.htm
[5] Ibid

- Transportation organizations
- Utilities
- Industry representatives
- Chambers of Commerce
- Health Organizations
- Neighborhood Organizations
- Other elected officials
- Minority Organizations

The following table lists the business, industry, and other groups from which the current members to the AIR Advisory Committee are drawn.

Table 2-2 AIR Advisory Membership

Air Improvement Resources Advisory Member Agencies	
HEB	TxDOT
Kendall County	Zachry Construction
S.A. Manufacturers Association	Word Construction Company
VIA Metropolitan Transit	Lackland Independent School District
Holt Company	City Of San Antonio
Neighborhood Associations	SAWS
Martin Marietta	New Braunfels Chamber of Commerce
City of Seguin	Guadalupe County
Valero	Texas State Inspection Association
USAA	Toyota Manufacturing of North America
American Lung Association	Greater San Antonio Chamber of Commerce
Northside Independent School District	

2.1.3 AIR Technical Committee

The AIR Technical Committee provides recommendations and technical assistance on air quality technical issues to the AIR Executive Committee. The members of the committee are representatives of local planning agencies; those currently providing members to the committee are listed in the table provided.[6]

Table 2-3 AIR Technical Member Agencies

Air Improvement Resources Technical Committee Member Agencies	
Alamo Area Council of Governments	Metropolitan Planning Organization
Bexar County	City of New Braunfels
City Public Service	City of San Antonio
Comal County	City of Seguin
City of Floresville	Texas State Inspection Association (ex-officio)
Guadalupe County	TxDOT District Office
Metropolitan Health District	US Environmental Protection Agency (ex-officio)
VIA Metropolitan Transit	Wilson County
Texas Commission on Environmental Quality (ex-officio)	

[6] Bylaws, Air Improvement Resources Committee of the Alamo Area Council of Governments, available Dec. 4, 2003 online as: http://www.aacog.com/air/WhatWeDo/AIRCO Bylaws.htm

2.1.4 AIR Public Education Committee

The AIR Public Education Committee provides stakeholders with the opportunity to participate monthly in the development of materials, advertisements, activities, and events aimed at educating the public about regional air quality issues and Clean Air Plan development.

2.1.5 Public Meetings/Clean Air Plan Workshops

In accordance with the EAC, the public will have opportunities to participate with the ongoing development of the Clean Air plan in order to familiarize themselves with the process and goals of the project. Although the regularly scheduled monthly meetings of the AIR Executive Committee, the planning committee for air quality planning under the Early Action Compact in the San Antonio region, are open to the public and always have a Citizens to Be Heard agenda item, additional exposure to the project is expressly provided to the public through these meetings. This is achieved through the hosting of Clean Air Plan Workshops. Information about the workshop held during the first half of 2004 is given here.

Goals:

- Education - The public meetings and workshops are designed to give the public background information and updates on topics such as air quality health issues, applicable federal and state law, current/historic ozone levels, the local response provided by the Early Action Compact. Other background may include an explanation of the EAC, the concept of control strategies, the current status of the plan, the role of local elected officials, of AACOG's committees, of the public, of the state and federal governments, timelines, deliverables under the EAC, etc.
- Communication of public opinion / feedback to the elected officials.

Table 2-4 Date and Location of Clean Air Plan Workshop

Date	Location
February 3, 2004	AACOG Board Room, 8700 Tesoro, San Antonio, TX 78217

2.1.5.1 February 3rd: Clean Air Plan Workshop

The workshop on February 3rd focused on presenting the selected clean air strategies that were to be incorporated into the Clean Air Plan to the public. Elected officials were present to provide answers to citizen questions during the course of the workshop.

2.2 Stakeholder Roles

Roles of the AIR Committee

The AIR Committee is composed of several committees: AIR Executive, AIR Advisory, AIR Technical, and AIR Public Education Committee. The mission of the AIR Committee is to facilitate the completion of the air quality studies, complete necessary planning activities, and develop a comprehensive emission reduction plan that will guide our region's actions to attain the 8-hour ozone NAAQS.

Roles of the Public

Public participation is an integral part of the Clean Air Plan, thus various avenues must be provided to enable citizens to have access to the development process. Every citizen in the region has three avenues they can partake 1) in AIR Committee public meetings, 2) in public meetings and upcoming Clean Air Plan Workshops, and 3) by responding through the AACOG website.

Chapter 3 – Early Action Compact Milestones

The Attainment Demonstration for the San Antonio Early Action Compact Region was submitted to the Texas Commission on Environmental Quality and the Environmental Protection Agency on March 31, 2004. The Demonstration addressed each of the required milestones as stipulated by the Early Action Compact and detailed the efforts and clean air strategies that were selected by EAC signatories as the strategies that would help attain the 8-hour NAAQS for ground-level ozone. The following sections will describe the milestones and progress completed through the months of January to June 2004.

3.1 Control Strategy Development Milestones

The AIR Committee recommended three Clean Air Strategies for inclusion in the Clean Air Plan to local Early Action Compact signatory governments for their final approval. The strategies were:

- Reid Vapor Pressure lowered to 7.2 pounds per square inch during the ozone season for the San Antonio region;
- Degreasing Equipment Operation Controls, described in TAC, Title 30, Ch. 115; and
- Stage I Vapor Recovery required of service stations of 25,000 gallons throughput of gasoline or more per month.

The eight local governments which are signatories to the Early Action Compact for the San Antonio region deliberated these strategies during regularly scheduled meetings of their representatives (i.e., during City Council meetings or during Commissioners' Court sessions). All eight local governments voted to endorse the three Clean Air Strategies above and to support this planning process. The San Antonio EAC Region, acting through the AIR Committee, has incorporated these three strategies into the Clean Air Plan and requests that the Texas Commission on Environmental Quality take the necessary actions, including development of enforcement provisions, to implement these clean air strategies. The following list details the dates the signatory governments met and approved the proposed clean air strategies.

- February 3, 2004: City of Seguin
- February 5, 2004: Comal County Commissioner's Court
- February 9, 2004: Wilson County Commissioner's Court
- February 10, 2004: Bexar County Commissioner's Court
- February 12, 2004: City of San Antonio
- February 12, 2004: City of Floresville
- February 23, 2004: City of New Braunfels
- February 24, 2004: Guadalupe County Commissioner's Court

Copies of the resolutions signed by each of the governments are available as Appendix N: Resolutions from Early Action Compact Signatory Local Governments in Support of the Proposed Local Revisions to the State Implementation Plan and the Local Clean Air Strategies of the Proposed Local Revisions to the State Implementation Plan. This document set is available online: http://www.aacog.com/sip.

3.1.1 Challenges to Local Clean Air Strategies

During the Clean Air Strategy ratification phase, TCEQ and EPA notified AACOG staff of possible "challenges" to several of the clean air strategies that were under consideration by the EAC signatory governments. The challenges concerned the Clean Air Strategies requesting seasonal RVP 7.2 gasoline as well as the strategy requiring degreasing equipment controls. The proceeding bulleted list details the timeline of which the notifications, endorsements, and resolutions occurred during the strategy ratification process for each locally selected strategy.

RVP 7.2 Gasoline

- January 27, 2004: AACOG received communication from EPA's Region 6 Office regarding the request for gasoline with an RVP of 7.2 and Section 211 of the Clean Air Act. EPA expressed concern on whether Section 211 would apply to a lower RVP request by a region acting under the Early Action Compact. This was the first notification to AACOG that there might perhaps be existing law affecting some conditions of the request by the San Antonio area for lower RVP.

- January 28, 2004: During a regularly scheduled meeting of the AIR Executive/Advisory Committees, lower RVP received the formal endorsement by the committee as a strategy selected for ratification by the local EAC signatory governments.

- Between February 3- February 12, 2004, six of the eight local Early Action Compact signatory governments took up the formal endorsement of RVP as one of three Clean Air Strategies for their approval.

- February 13, 2004: TCEQ provided AACOG some clarification[7] regarding the circumstances allowing such a measure to be implemented in the local EAC SIP. According to EPA and TCEQ preliminary investigations, Section 211(c)(4)(A) of the federal CAA prohibits state and federal governments from enforcing RVP as it was being requested. Such a measure can only be implemented in an EAC SIP if there are special circumstances.

- February 17, 2004: an EPA Working Group confirmed their earlier interpretation of this provision, supporting TCEQ's opinion.

- The remaining two of the eight local Early Action Compact signatory governments took up formal endorsement of RVP as one of the three Clean Air Strategies for their approval.
    - February 23, 2004: City of New Braunfels approved RVP
    - February 24, 2004: Guadalupe County Commissioner's Court approved RVP

Given the formal approval of the EAC signatory governments, the San Antonio EAC Region committed to request the state to implement a 4-county EAC regional rule requiring gasoline stations to dispense gasoline with an RVP 7.2 during the months of March to October. Due to the apparent enforcement prohibitions described above, the emissions reduction credits which would be expected through such a rule are not

[7] Email from Candy Garrett, dated February 13, 2004 to Peter Bella of AACOG. Ms. Garrett is Director, Environmental Planning and Implementation for TCEQ.

considered SIP-creditable and are not modeled in the Attainment Demonstration model. If a resolution is reached such that lower RVP is supplied to the San Antonio region as approved by local governments on a permanent, enforceable basis, appropriate SIP credit will be taken for the measure as a successful local Clean Air Strategy.

Degreasing Equipment Controls

- January 28, 2004: During a regularly scheduled meeting of the AIR Executive/Advisory Committees, degreasing equipment controls received the formal endorsement by the committee as a strategy selected for ratification by the local EAC signatory governments.

- Early February 2004: TCEQ staff from the Region 13 office informed AACOG staff that Chapter 106 of the TAC contained a requirement to implement Chapter 115-compliant degreasing controls statewide. Subsequent investigations revealed that subchapter T of Chapter 106 requires Permit By Rule degreasing units, regardless of the county in which they are located, to meet the requirements of §115.412 and §115.415. Following the realization that much of the credit previously calculated for degreasing controls as a voluntary Clean Air Strategy might no longer be available due to Chapter 106, AACOG staff proceeded to analyze Chapter 106 and Chapter 115 and assess how emission reductions should be properly determined and allocated.

- The eight local Early Action Compact signatory governments took up the formal endorsement of degreasing equipment controls as one of three Clean Air Strategies for their approval during February 2004.

Due to the effectiveness of Chapter 106 as an existing degreasing emission control, effective through existing state rule, an additional 5.1 tons per day VOC reduction credit was taken in the 2007 base case. However, no credit for degreasing emission controls was allowed as additional Clean Air Strategy reduction credits in the Attainment Demonstration.

The sole emission reduction credits entered into the Attainment Demonstration through enactment of local clean air strategies are those given by Stage I Vapor Recovery. The "SIP credited" reduction was in the amount of 5.81 tons per day of VOC, which lowered ozone levels as shown in the "Control Strategies Included" row of Table 3-1 below.

With the resulting support and approval by the EAC signatory governments of the recommended clear air measures, the Attainment Demonstration of the San Antonio Early Action Compact Region requested the implementation of the three strategies. The Attainment Demonstration was submitted to the TCEQ and EPA by the March 31, 2004 deadline.

3.1.2 Base Case and Control Strategy: Photochemical Modeling Results

According to the photochemical modeling analysis performed by staff, the region will again achieve attainment by the year 2007. Table 3-1 shows design values for the 1999 base case, the 2007 base case, and the impacts of adopted control strategies on design values for CAMS 23, 59, 678, and 58 where ozone levels are being recorded.

Table 3-1 Comparison of 1999 and 2007 Base Cases & Adopted Control Strategies

Model Run	Design Value at CAMS 23	Design Value at CAMS 58	Design Value at CAMS 59	Design Value at CAMS 678
1999 Base Case	89	87	79	77
2007 Base case	84.55	82.14	74.48	74.46
Control Strategies Included	84.43	82.05	74.44	74.39

3.1.3 Additional Evidence

This section introduces further local projects as well as additional studies and indicators supporting the likelihood of the attainment predicted by the SAER's 2007 photochemical model.

- ***Degreasing Emissions***
  Degreasers in the SAER are subject to adherence of Chapter 115 controls through reference in Chapter 106. Information provided by the TCEQ indicates that at least 50% of the San Antonio market are Chapter 106 compliant. Hence, the 85% reduction effective through Chapter 106/115 should act as a first approximation correction to 50% of the degreasing emissions in the 1999 EI.

- ***Pollution Transport***
  Using the graphic capabilities of the CAMx model and applying some post processing techniques, attempts have shown the impacts of removing the anthropogenic emissions on the design value of the modeled episode at various CAMS. Although emissions in the San Antonio region is predicted to increase in 2007, the region's contribution to its design value for the September 1999 episode will remain as 25% of the total design value, or 21.86 parts per billion of ozone.[8] (AACOG, 2003a)

- ***Alternative Fuel Vehicles***
  The results of an alternative fuel survey conducted in the San Antonio region in 2001 indicated that there were 2,050 AFVs in the San Antonio region, and this number is expected to increase to 2,442 AFVs by 2006. Of the reported fleet, 1,755 vehicles were modeled as the September 2001 fleet and 2,147 vehicles for the September 2007 fleet. These fleets provided emission reductions of 62 lbs./day of VOC, 45 lbs./day of CO, and 689 lbs./day of NOx and emissions reductions of 72 lbs./day of VOCs, 45 lbs./day of CO, and 858 lbs./day of NOx for the year 2007, respectively.

- ***Energy Efficiency / Renewable Energy Projects***
  The TCEQ provided a protocol for implementing and calculating emission reductions from energy saving resulting from Senate Bill 5 (SB5) and Senate Bill 7 (SB7) measures. Since passing the bills, efforts have been underway both to implement the energy reductions required by the state and to quantify the associated ozone precursor reductions. Air quality planners in the San Antonio region currently benefit from a partnership created by the TCEQ between AACOG, the Energy Systems

[8] Alamo Area Council of Governments (AACOG), 2003. Conceptual Model for Ozone Analysis of the San Antonio Region, San Antonio, TX.

Laboratory (ESL) of Texas A&M University, the local Metropolitan Partnership for Energy, and the Brooks Energy Sustainability Laboratory (BESL) of the Texas Engineering Experiment Station.

- ***Lawnmower Recycling Program***
  City Public Service (CPS) initiated the "buy back" lawnmower program in 1998. The City of San Antonio and the Alamo Area Council of Governments later partnered in promoting CPS' "buy back" events. Since its inception, CPS's "Mow Down Smog" lawn mower rebate program has removed over 3,200 pieces of operating gasoline-powered lawn equipment and replaced them with virtually pollution-free electric lawn equipment.

- ***Lower Reid Vapor Pressure***
  Gasoline with an RVP of 7.2 was proposed for the San Antonio region after in depth modeling, cost-benefit analysis, and consideration of sentiments of the local communities and their elected officials. If allowed, adoption of this fuel during the ozone season is expected to help reduce emissions of VOCs and NOx by 2.1 and 0.05 tons/day respectively. The requirement for gasoline refineries to provide such gasoline will only be during the months of March through October, which is usually the time of the year ozone levels exceed the national standard in San Antonio region.

- ***Windshield Wiper Fluid***
  Prior to EPA's issuance of a national rule addressing VOC emission standards for windshield wiper fluid to 35 weight-%VOC, Texas adopted a consumer products rule that limits automotive windshield washer fluid to 23.5 weight-% VOC. Due to the difference between EPA's 35% requirement, the EPA allows Texas to take credit for the difference

- ***Gas-fired Water Heaters, Small Boilers, and Process Heaters***
  This statewide rule would reduce NOx emissions from new natural gas-fired water heaters, small boilers, and process heaters sold and installed in Texas beginning in 2002. It is estimated that this rule would help reduce area source NOx emissions by 5% to 10%. The rules would apply to each new water heater, boiler, or process heater with a maximum rated capacity of up to 2.0 MMBtu/hr. (TCEQ, 2004)

- ***Transportation Demand Management***
  Transportation Demand Management (TDM) projects are transportation-related projects that attempt to reduce vehicle use, change traffic flow, or reduce congestion conditions. Transportation Emission Reduction Measures (TERMs) are examples of TDMs. The following sections are examples of TDMs exercised in the area.

  Transportation Emission Reduction Measures
  Transportation Emission Reduction Measures (TERMs) are strategies or actions that can be employed to offset increases in nitrogen oxide (NOx) and volatile organic compound emissions from mobile sources by reducing either the number of vehicle trips, vehicle miles traveled, or both. Many of projects in the San Antonio-Bexar County Metropolitan Planning Organization (SA-BC MPO) Transportation

Improvement Programs (TIP)[9] can be quantified as creditable reductions. Local air quality planners are currently researching measures to make the appropriate TERMS enforceable. The region is intent on making them enforceable and calculating SIP credit for them in coordination with the state and the SA-BC MPO. Even if credit is not taken here for the TERMS projects in the region, the benefits of the reductions accrue as Additional Evidence that the San Antonio region will reach attainment.

Intersection Improvement and Signalization
Traffic signalization projects can reduce carbon monoxide (CO) and hydrocarbon (HC) by reducing the number of vehicular stops and idling, which would reduce travel times and traffic delays. Reductions in fuel consumption have also been observed through traffic signal re-timing. Traffic flow at intersections can be improved in interconnection and coordination of signals.

- ***TransGuide***
  ITS have a significant impact on reducing the delays due to accidents and congestion on freeway systems in metropolitan areas. (Henk, R., et.al., 1996), (Carter, M., et.al., 2000) For the particular corridor modeled during this study, optimum implementation of the integrated VMS and incident management result in a 5.7% decrease in delay, a 2.8% decrease in crashes, and a 1.2% decrease in fuel consumption annually. Integrated use of incident management, VMS and arterial traffic control can achieve an annual benefit of a 5.9% reduction in delay, a 2.0% decrease in crashes, and a 1.4% decrease in fuel consumption for travelers in the corridor.

- ***Public Education***
  The concept of public education is to familiarize the public with actions they can take to improve the air quality. There has been no attempt to quantify the air quality impacts of these public outreach projects.

- ***Voluntary Measures by Governmental and Industrial Entities***
  Various measures which benefit the area's ambient air quality are currently implemented by local municipalities and companies. The implementation of the strategies by the various entities are voluntary efforts that benefit the air quality as well as the community they serve. Here are a few examples of the committed and voluntary strategies that are currently in effect.
  - Bexar County committed to use Texas Ultra Low Sulfur Diesel Fuel in the county's diesel fleet vehicles as well as voluntarily post signs at facilities promoting ozone reduction measures
  - City Public Service (CPS) is committed to fulfill their Emission Reduction Program by including combustion tuning and installation of advanced technology. CPS also voluntarily allows flextime or telecommuting for CPS employees for which this option is feasible and allowed by the management of that area.
  - Lackland Independent School District commits to not use gas powered lawn equipment when an Air Quality Health Alert is issued but rather assign grounds personnel alternative tasks. The school district will also voluntarily research and consider the feasibility of alternative fuels for the district's vehicle fleets

[9] Available online: http://www.co.bexar.tx.us/mpo/pages/futureprojects/short/main.html

3.2 Public Involvement Milestones

Educating the public about the importance of the region's air quality continues to be a crucial effort for this Clean Air Plan. Outreach and education efforts continue within the MSA, often through partnerships with other governmental entities and industrial leaders in the area. As the Clean Air Plan is developed, citizens and citizen groups are given the opportunity to be involved in the Clean Air Plan development process.

3.2.1 Media

Local media efforts have played an important role in notifying the public about the development of the Clean Air Plan as well as in educating the public on the state of the region's air quality and how air quality affects respiratory health. Television, radio, newspapers, and websites have been avenues through which information about the Clean Air Plan and the four county's air quality has been dispersed. Press releases and public service announcements have been and will continue to be utilized to educate the public. Between January and May 2004, there were 18 television pieces, 18 radio pieces, and 32 newspaper pieces regarding the Clean Air Plan and air quality issues. During this time, public service announcements are confirmed to have aired on four television stations (WOAI, KABB, KRRT, and News9 San Antonio) and nine radio stations (KISS, KSMG, KKYX/KCYY, WOAI, KAJA, KXTN, KROM, and KONO)

3.2.2 Other Outreach Efforts

Non-media related outreach efforts continue. Between January and May 2004, 13 governmental, business, and/or civic group presentations have been provided. In the same time period, AACOG staff provided presentations to five area schools, reaching approximately 80 students. Whenever possible, AACOG coordinates and/or participates in public events; such events allow AACOG staff to educate citizens on how everyday actions contribute to air pollution and that alternate methods of doing the same tasks can help reduce emissions. During this time period, AACOG participated in 17 events. Additionally, AACOG maintains an air quality website, which is updated weekly and provides a wealth of information on air quality issues.

On March 27, 2004, AACOG along with the AIR Public Education Committee hosted Ozone Season Kickoff to promote awareness among the public about health concerns caused by ozone exposure as well as alternative activities that can be done to reduce ozone pollution. Approximately 500 people attended Ozone Season Kickoff and were given the opportunity to have emission tests performed on their vehicle, receive advice regarding proper car maintenance by certified mechanics, and examine hybrid vehicles as well as alternative fuel vehicles. Various city, county, state, and public entities participated in the event promoting various environmentally friendly actions as well as the services they provide.

AACOG is involved with the promotion and coordination of the Adopt-A-Schoolbus program, which is a cooperative partnership established to aid non-attainment area school districts in replacing their aging diesel school buses with new "clean fuel" buses. This goal will be achieved by educating school districts and corporations about the benefits of replacing older diesel buses with lower emission "clean fuel" buses. Approximately 275 school buses in the San Antonio area are projected to be converted to "clean fuel" buses over the course of three school fiscal years, which could result in a reduction of approximately 110 tons/year of NO_x and 11 tons/year of PM. Efforts at reducing the emission capacity of school buses could involve the combination of

replacing and retrofitting buses with new technology to achieve NO_x and PM reductions and the possible use of low-sulfur fuel.

In addition, the AACOG staff is vigorously promoting the Texas Emissions Reduction Plan (TERP) created in 2001 by Texas Senate Bill 5. With the partnership of the Texas Commission on Environmental Quality and a number of stakeholders, AACOG hosted a TERP workshop on January 21, 2004. Attendees received direct, hands-on guidance in filling out the grant application forms for TERP projects.[10] AACOG has also hosted a series of workshops for local governments, citizens, and homebuilders on the energy efficiency aspects of Senate Bill 5 as well.

3.3 Emissions Inventory Milestones

Emissions for the 2012 projection were analyzed and verified for quality assurance. These efforts were necessary for incorporation of the emissions into the Maintenance for Growth chapter of the Attainment Demonstration as well as compliance when analyzing emission trends. Emission trend analysis is an ongoing effort and will be helpful when developing the Emission Trend Analysis as required by the EAC in September 2005.

3.4 Maintenance for Growth Milestones

The maintenance for growth will demonstrate maintenance of the 8-hour ozone standard through the year 2012 while accounting for projected population growth. Chapter 6 and Appendix L of the Attainment Demonstration for the San Antonio Early Action Compact Region describes in detail the region's planning for five years beyond the 2007 attainment date.

The Maintenance for Growth section analyzes the emissions inventories from 1996 and 1999 and projects emissions to 2007 and 2012. These future year projections encompass all relevant changes affecting future emissions, including revised or new federal, state, and local rules and any new practices that would result in changes to future year emissions inventories.

3.4.1 Methodologies: 2012 projections

The 2012 emission projections were developed using the same methodologies in the development of 2007 emissions. However, there are some components in the methodologies, such as emission factors, that were altered to reflect predicted changes for 2012 different from 2007. New emission sources that came into existence after 2007 but before 2012 were accounted for as well.

When projecting 2012 point source emissions, point sources that are expected to come into existence between 2007 to 2012 were accounted for. These new point sources include the Guadalupe County Power Plants, the Tessman Road Landfill Gas Power Station, the new City Public Service Power Plant, and the Toyota Manufacturing Plant. VOC emissions are projected to increase due to the contribution of the Toyota Manufacturing Plant. The remaining new point source projects such as the CPS power plant, the Tessman LFG Power Station, and the Guadalupe Power Plant are not

[10] Visit http://www.tnrcc.state.tx.us/oprd/sips/terp.html for more information on the TCEQ's TERP program. For more information on AACOG's TERP workshops, please visit http://www.aacog.com/terp/.

expected to contribute as significant amount of VOC emissions as the Toyota Manufacturing Plant. NOx emissions are projected to decrease in the 2007 and 2012 projections.

3.4.2 Comparison of 2007-2012 Emissions by Major Category

Emissions in each category for 2007 and 2012 were compared and analyzed in order to ensure attainment. VOC emissions from point source are estimated to increase approximately 38.5% from 2007 to 2012. The rise is attributed to the emergence of new point sources within the region, such as the Toyota Manufacturing Plant. Point source NOx emissions are expected to decrease by 13.6%. The drop in NOx is anticipated due to use of improved emission reducing technologies employed at the City Public Service power production facilities. In non-road sources, a 17.6% drop in VOC and a 8.2% drop in NOx emissions is anticipated across the four counties between 2007 and 2012. The emission reductions are due to various state and federal control strategies. Area source VOC emissions are projected to increase 3.2% and NOx emissions by 5.6%. This can be attributed to various growth assumptions, such as population growth. On-road VOCs decreased by 25.5% and NOx emissions dropped by 40% from 2007 to 2012. State and federal on-road control strategies that will be implemented by 2007 are reasons for the decrease in both ozone precursors. Airport/Military emissions were not projected due to the uncertainty of future of airport and military base activities in the region. Biogenic emissions emissions were unchanged from 1999 for 2012. Table 3-2 details the emissions from 1996, 1999, 2007, and 2012.

Table 3-2 Anthropogenic Emissions within the San Antonio Early Action Compact Region

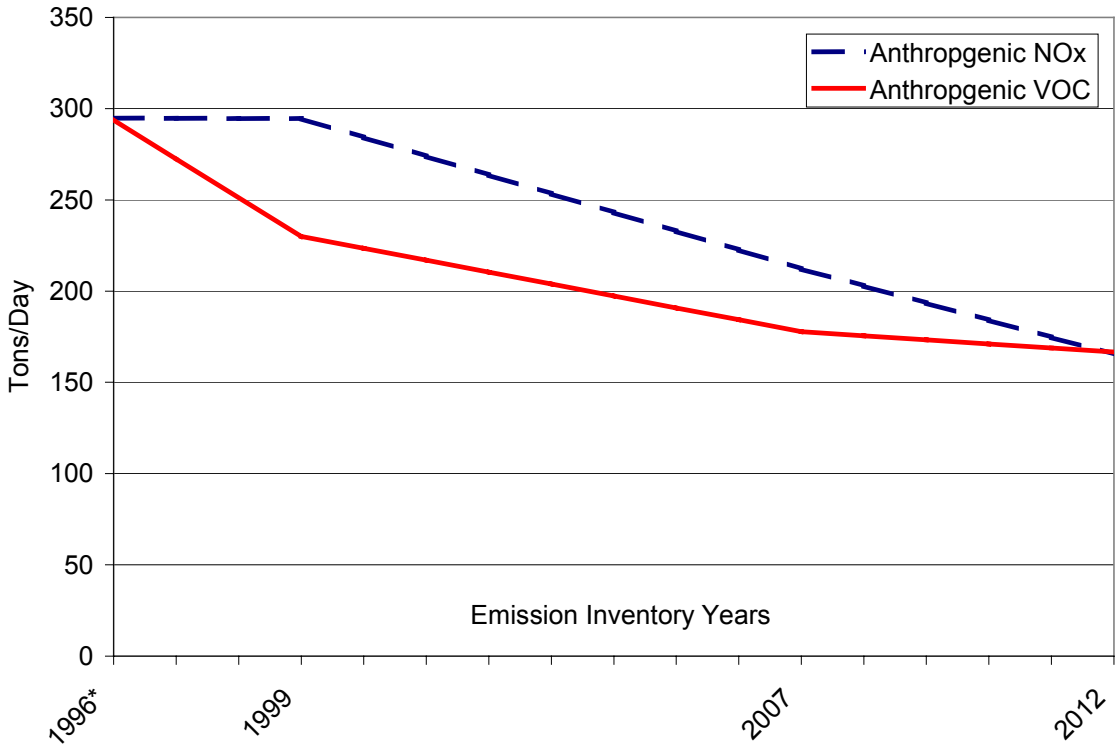
San Antonio Early Action Compact Region		Tons per Day Emission							
		1996*		1999		2007		2012	
		VOC	NOx	VOC	NOx	VOC	NOx	VOC	NOx
Area Sources	Bexar	78.3	2.4	73.4	4.7	69.2	5.0	71.4	5.2
	Comal	4.4	0.1	3.7	0.3	3.4	0.5	3.6	0.5
	Guadalupe	6.1	0.3	5.4	0.9	5.2	1.7	5.4	1.8
	Wilson	2.6	0.4	2.7	0.9	2.7	1.8	2.7	2.0
	Total	91.4	3.3	85.2	6.8	80.5	9.0	83.1	9.5
Point Sources	Bexar	7.0	64.3	6.3	83.9	11.8	53.2	17.0	43.0
	Comal	0.4	8.2	0.5	12.2	0.5	13.8	0.5	13.8
	Guadalupe	0.4	0.3	0.5	0.5	1.1	8.1	1.1	8.1
	Wilson	0.0	0.0	0.01	0.004	0.1	0.004	0.1	0.004
	Total	7.8	72.8	7.3	96.6	13.5	75.1	18.7	64.9
On Road Sources	Bexar	106.6	122.39	82.1	121.87	45.5	69.1	33.7	41.4
	Comal	6.8	10.4	6.2	11.7	3.9	7.1	3	4.3
	Guadalupe	6.6	10	5.6	10.5	3.4	6.5	2.6	3.9
	Wilson	1.9	1.9	1.6	1.9	1	1.3	0.8	0.8
	Total	121.9	144.69	95.5	145.97	53.8	84	40.1	50.4
Non Road Sources	Bexar	54.3	55.2	36.3	36.4	25.6	36.3	21.0	32.9
	Comal	9.8	3.5	3.4	2.6	2.1	3.4	1.8	3.3
	Guadalupe	4.3	4.4	4.1	2.3	1.7	3.3	1.4	3.3
	Wilson	1.4	4.1	1.0	0.7	0.6	1.0	0.5	0.9
	Total	69.9	67.2	45.7	42.0	30.0	44.0	24.7	40.4

*note 1996 estimates includes version two of the 1995 Mobile6 inventory

3.4.2.1 Emissions Trend

Figure 3-1 illustrates the predicted emission trend from 1996 to 2012. This illustration further supports the SAER's projected maintenance of attainment of the NAAQS 8-hour ozone standard. Between 1999 and 2007, an overall reduction of 28% of NOx emissions and a 23% reduction in VOC emissions are predicted. Between 2007 and 2012, an additional 22% reduction in NOx emissions and 7% reduction in VOC emissions can be expected. These reductions are a result of the positive actions enforced by the USEPA and TCEQ and indicate improved air quality is in the future of the San Antonio EAC region.

Figure 3-1 Trend of VOC and NOx Emissions in the SAER, 1996, 1999, 2007, 2012



3.4.3 Updating the Planning Process

Various stages of planning and verification must be performed on a continual basis to ensure timely emission reductions for the region to maintain air quality standards. The impacts of new point source related emissions, economic and population growth, and the implementation of new control strategies are evaluated during the air quality modeling process. In the development of the State Implementation Plan for the San Antonio Early Action Compact Region, projected growth of emission sources in the area was integral in the air quality planning process. This preliminary trend analysis indicated that emissions for some sources were projected to increase while other sources would have a decrease in emissions. Model analysis of their effect on ambient ozone levels will be essential in ensuring the maintenance of attainment.

3.4.3.1 Modeling Updates and Modeling Assumption Verification

AACOG staff will analyze air quality and related data and perform necessary modeling updates and modeling assumption verification annually. In the event that updated

emission inventories, updates in any photochemical model inputs, or corrections to earlier modeling assumptions are created and available, the modeling scenarios used to demonstrate attainment for the SAER will be brought up to date. Modeling updates will be performed in accordance with state and federal guidelines.

Ongoing Updates
Gathering, updating, and verifying data is part of an ongoing process between the Texas Commission on Environmental Quality, the US Environmental Protection Agency, and the Alamo Area Council of Governments. The updating and verification process will continue to occur in the context of the Joint Near Nonattainment Area meetings held by air quality planning technical staff representing TCEQ, and the San Antonio, Victoria, Corpus Christi, Austin and the Tyler-Longview areas, or other appropriate venue (technical meetings with TCEQ and / or EPA, etc.). AACOG frequently attends other technical modeling meetings hosted by the TCEQ, EPA as well as regularly scheduled monthly technical meetings of the local San Antonio / Bexar County Metropolitan Planning Organization (MPO). All local transportation planning updates to the modeling inputs will be incorporated as they occur, and their impacts analyzed.

Reporting of modeling updates and modeling assumption verification will be reported in the Semi-Annual Reports written by the AACOG. These reports are due on an ongoing six-month cycle ending December 31 and June 30 of each year of the Early Action Compact, ending December 31, 2007.

3.4.3.2 Transportation Patterns
The development of transportation patterns is influenced by many factors such as land use and urban planning. Transportation patterns directly effect emissions originating from on-road sources, therefore they must be evaluated for their impact on ozone levels. Throughout the continuing planning process, the air quality impact on the region's ozone levels imposed by transportation patterns will be evaluated and assessed by technical staff of various local, regional, state, and federal offices. As specified in 3.4.3.1, the ongoing technical collaboration between AACOG and the local MPO is the central conduit such that updated transportation planning becomes integrated in air quality planning. These cooperative relations will assist in maintaining the 8-hour ozone standard by the technical assistance provided by each agency and in the event additional planning is necessary.

3.4.4 New Strategy Requirements
The annual reviews of growth, including the updates and the continuing planning processes reported in the Semi-Annual Updates will provide air quality planners the insight necessary to ensure attainment of the 8-hour standard up to 2012. The extensive clean air strategy modeling performed by AACOG staff will facilitate the planning if the continuous review process indicates additional measures should be considered.

If at any time the review of growth demonstrates that adopted control measures are inadequate to address growth in emissions, additional measures will be added to the plan. If additional control measures for 2007 attainment are suggested as being necessary through a review of growth, they will be verified using the current attainment demonstration photochemical model and adopted according to the public review process overseen by the Air Improvement Resources Committee. If additional control measures for 2012 attainment are suggested as being necessary through a review of growth,

AACOG staff will work with the TCEQ and EPA to analyze control strategies based on then-currently available photochemical models. Appropriate control strategies will be adopted according to the public review process overseen by the Air Improvement Resources Committee.

3.5 Modeling Milestones

Performing on-going modeling activities ensures the quality of modeling products required for air quality planning activities. The ongoing analysis of the ambient air situation in the San Antonio Early Action Compact Region requires continuous updates to provide air quality planners the comprehension of the air quality situation in the region.

3.5.1 Conceptual Model

A conceptual model profiles or typifies the conditions in which high ozone levels occur for a region through the study of the meteorology, seasonal variables, and regional influences, accompanying high levels of ozone. From this data, episodes are designated as possible modeling candidates. Thus, a conceptual model is a tool a tool to compare possible episodes that could be incorporated into a photochemical model for control strategy evaluation.

The conceptual model developed and referenced in the 1st Biannual Report submitted in June of 2003 analyzed various data up to 2002. Updates were recently performed on the conceptual model and included obtaining ozone data, meteorological data sets, information on transport, wind direction, and back trajectories from 2003. Ozone levels were recorded for the nonattainment and near nonattainment areas in Texas. Selection of a possible "episode" occurs when the comparison of ozone levels from each area allows the identification of a timeframe in which all the areas experienced high ozone levels at the same time. The following table lists all eight-hour ozone exceedance days recorded in San Antonio for the 2003 ozone season. This list was added to a list of candidate episode dates from 1995-2002 that was originally included in the Conceptual Model report. After compiling a list of ozone exceedance days – using eight-hour definitions for exceedance -- from TCEQ archives, the task of identifying patterns in the data begins.

Table 3-3 2003 Ozone Exceedance Days and Possible Modeling Episodes

Date	8 Hour	Multiple Exceedance Days	Notes	Additional Notes
5/23/03	88	May 23-24	Weak candidate: fewer than 3 exceedance days	Could be modeled together as one episode with 4 exceedance days.
5/24/03	85			
5/28/03	96	May 28-29	Weak candidate: fewer than 3 exceedance days	
5/29/03	87			
6/7/03	86			
6/20/03	87			
9/6/03	91	September 6-7	Weak candidate: fewer than 3 exceedance days	
9/7/03	87			

Of the ozone data gathered during the update process, a design value for 2001-2003 was recalculated for an average of 89.3. This average is still in violation of the 8-hour ozone NAAQS. Table 3-4 lists the fourth highest ozone values for 2001-2003 and the design value for CAMS 23.

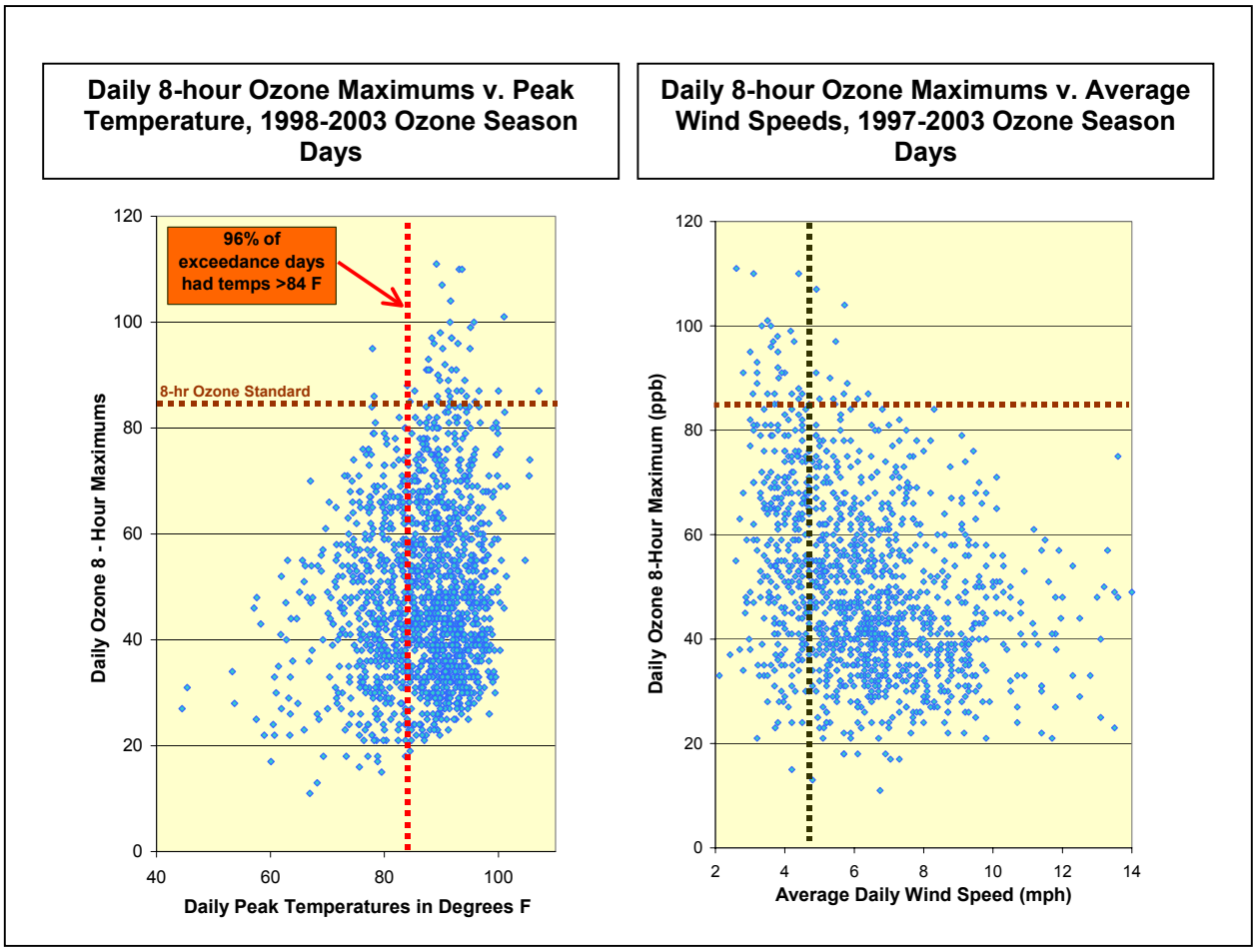
Table 3-4 Fourth Highest 8-Hour Ozone Values by Year and Design Values for the Conceptual Model (ppb)

Site	2001	2002	2003	Design Value
CAMS 23	78	104	86	89.3
CAMS 58	81	95	85	87.0

In addition to the design value at CAMS 23, the design value at CAMS 58 was 87.0, which is also in violation of the 8-hour ozone standard. The San Antonio EAC Region has two monitors in violation of the NAAQS.

Analyses were performed with these new data sets and involved observing the effect of some meteorological variables (temperature, precipitation, wind speed and direction), particulate matter (PM 2.5), solar radiation, and atmospheric stability. Figure 3-2 details the new analyses that were performed incorporating the 2003 data.

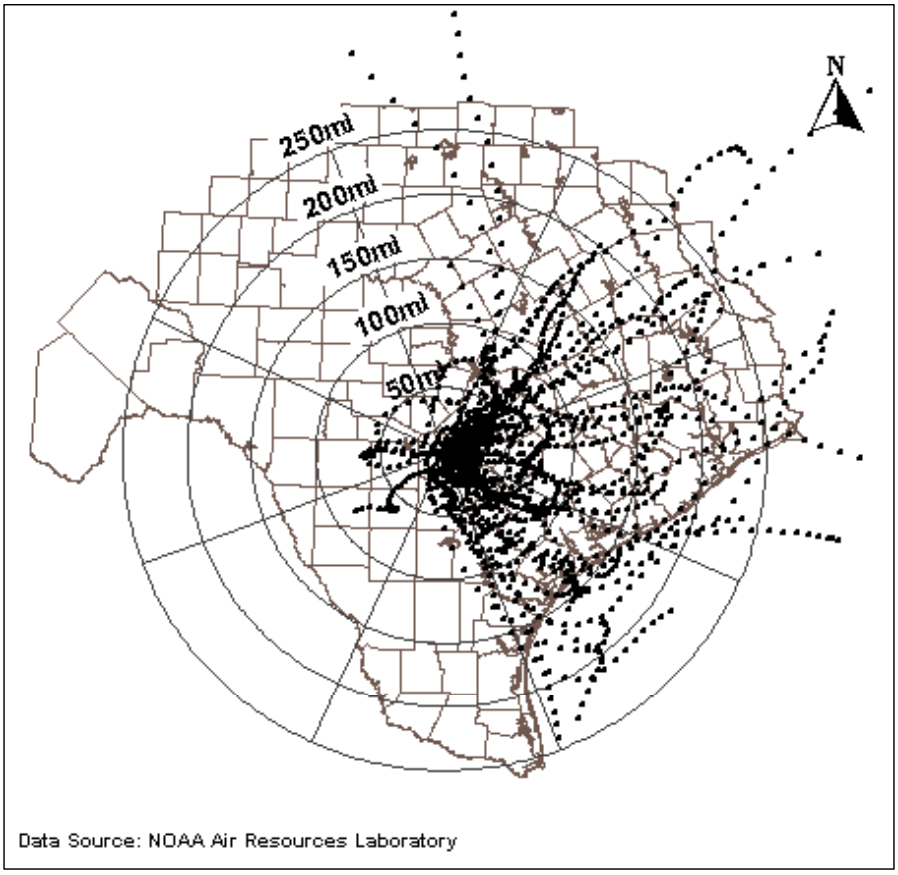
Figure 3-2 Updated Daily 8-hour Ozone Maximum Comparisons for the Conceptual Model



Air Parcel Paths

Studying air parcel paths can assist in the comprehension of "air pollution behavior." Back trajectories allow the movement of air parcels to be analyzed and recognize the path followed by the parcel before reaching its destination. The HYSPLIT model is used to develop back trajectories, as recommended by TCEQ.[11] By utilizing the HYSPLIT model for the forty-two exceedance days in the San Antonio area, spatial patterns were observed for the exceedance days. Figure 3-3 illustrates air parcel paths.

Figure 3-3 Back Trajectory Percentage by Direction for All Ozone Exceedance Days, 1997 – 2003



Analysis of wind directions is another component of the episode selection process. Table 3-5 the base case and composite (base case and candidate episode) percentages of air parcels by directional octant. Following table 3-5 is table 3-6, which provides an overall comparison of ozone and meteorological conditions for the extended May 2003 candidate episode. The table compares some of the meteorological characteristics analyzed when identifying a potential episode.

[11] TCEQ, Air Monitoring, "Where did the Air Come from and Where is It Going?" Available on-line: http://www.tnrcc.state.tx.us/updated/air/monops/data/trajectories/maintraj.html

Table 3-5 Episode Comparison Chart 1999 Base Case + Potential Candidate Episodes

Octant	All Exceedances 1997-2003	San Antonio **Base Case:** Sept. 16 & 18-20, 1999	**Base Case** + May 28-29, 2003	**Base Case** + May 28-29, 2003	**Base Case** + May 23-24 & 28-29, 2003	**Base Case** + Sept. 6-7, 2003
N	3%	0%	0%	5%	4%	0%
NE	23%	18%	12%	27%	20%	13%
E	27%	16%	12%	12%	10%	37%
SE	34%	47%	54%	33%	42%	37%
S	7%	14%	18%	9%	14%	9%
SW	3%	3%	2%	2%	2%	2%
W	3%	3%	2%	10%	7%	2%
NW	1%	0%	0%	2%	1%	0%

Table 3-6 San Antonio Peak Ozone and Meteorological Data (CAMS 23): May 23-31, 2003

Date	Max 8-hr. Ozone (ppb)	Peak Temperature (F)	Windspeed 6 a.m.-2 p.m. Average (mph)	Morning/Afternoon Wind Direction
5/23/2003	**88**	88	4.5	NE / SE
5/24/2003	**85**	91	6.0	SE / SE
5/25/2003	57	89	6.1	SE/ SE
5/26/2003	55	83	4.0	SE to NW / NE
5/27/2003	61	81	8.2	NE / NE
5/28/2003	**87**	89	5.2	NE / NW to SE
5/29/2003	**95**	93	4.3	W to N / SE to S
5/30/2003	78	96	5.7	SW / S
5/31/2003	81	94	4.9	S / SE

Stagnant vs. Transport

The Anthropogenic Precursor Culpability Assessment (APCA) was used to analyze the concentration of ozone in the San Antonio area and quantify the ozone contribution due to transport from neighboring areas and to source type. Figures 3-4 and 3-5 graphically depict the apportionment of ozone to its contributing sources and provide insight to the behavior and contributing trends of meteorological patterns to cause the high ozone levels in the San Antonio area.

Figure 3-4 presents a high ozone episode for the San Antonio region in July of 1995 and analysis of the episode indicates a stagnant air situation. As time elapsed, ozone levels from the initial conditions, boundary conditions, and San Antonio sources remained at significant levels. Initial condition ozone decreased at a slow rate, while boundary condition ozone slowly increased and San Antonio source levels remained constant. Ozone contributed from neighboring areas were not significant therefore not indicative of a transport issue.

Figure 3-4 CAMx APCA Analysis July 1995

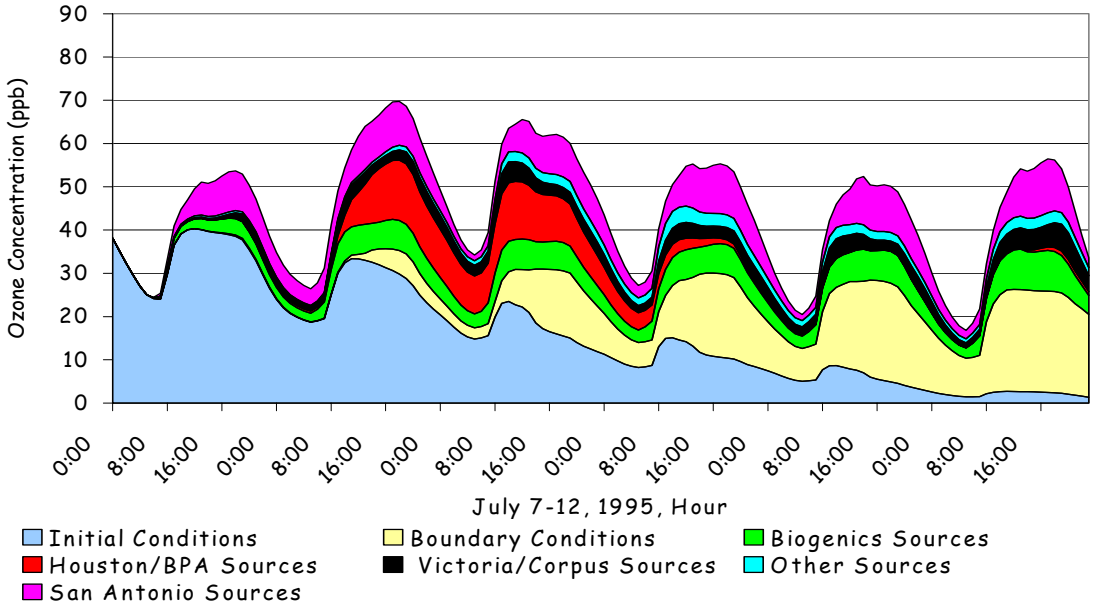
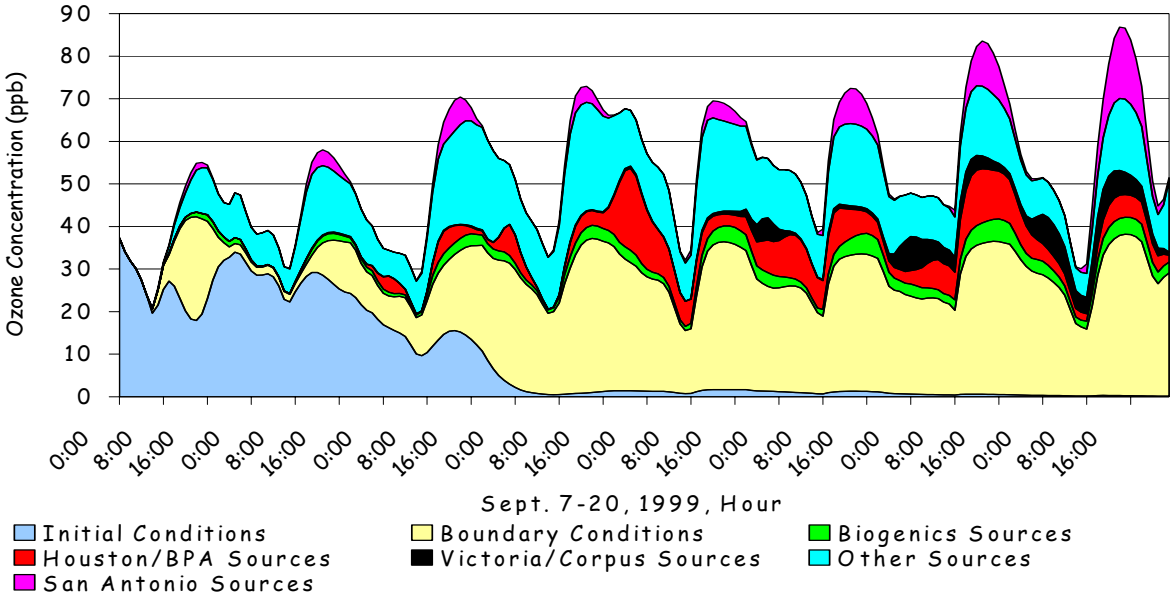


Figure 3-5 depicts a high ozone episode in September 1999. This episode differs from the July 1995 episode in the fact that ozone from boundary sources and other sources were significant to the measured ozone levels. Initial condition ozone decreased significantly while ozone from the other source categories increased and remained at constant high levels. A fairly constant contribution of ozone levels from Houston/BPA and Victoria/Corpus Sources can be observed as well. With this contributing factors, this episode is indicative of a transport episode. Significant transport of ozone from sources other than San Antonio resulted in high ozone readings in the San Antonio area.

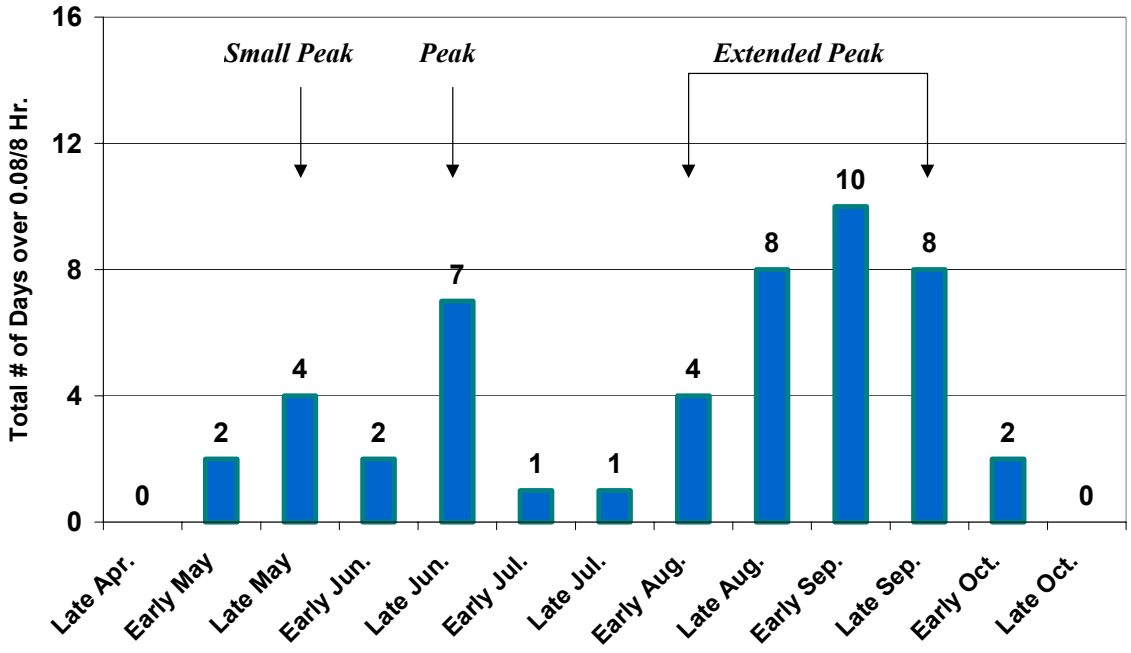
Figure 3-5 CAMx APCA Analysis September 1999



Ozone Seasonal Peaks in the Region

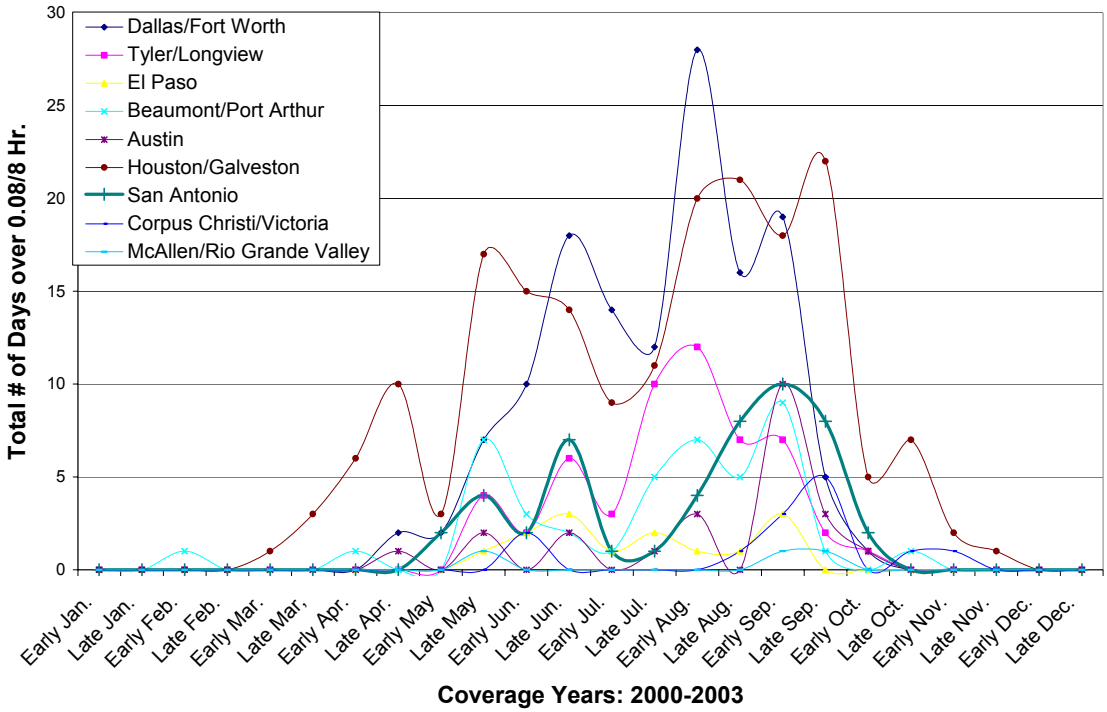
San Antonio's ozone season, April-October, was analyzed by two-week periods for the years of 1997 through 2003 to determine if and when seasonal peaks occur. Figure 3-6 illustrates the number of days the ozone levels exceeded the 85 parts per billion standard during the indicated 2-week period.

Figure 3-6 Ozone Exceedance Peaks for the San Antonio Region from 1997 to 2003



The identified peaks are periods of time where ozone exceedances commonly occur. The higher the bar on the bar graph, the greater the peak thus the more days the ozone level was over the 85 ppb threshold for the 8-hour average, during that 2-week period. Figure 3-7 shows the total number of exceedance days by two week periods from 2000-2003 for the near nonattainment and nonattainment regions of Texas. Comparing the peak trends of the various areas helps identify any local or regional events. The figure shows the first seasonal peak occurring in May, with all four exceedance days occurring in 2003. The next peak occurs in late June. The largest peak occurs from August to late September, represented by a hump. It should be noted that the "peaking" bars of Figure 3-6 coincide with the "peaking" curves of Figure 3-7 for the San Antonio area.

Figure 3-7 High Ozone Readings by Two-week Period by Metropolitan Region to Demonstrate Seasonal Peaks



Once these various analyses are completed, the modeling scenarios can be compared to the air quality scenarios from other near nonattainment areas. This will provide air quality planners with the best candidate episodes for selection to develop a new photochemical model. The following episodes from 2003 are deemed as possible candidate additions for the San Antonio region:

May 23-29, 2003

- 4 exceedance days in episode
- Back trajectory on the 29th is from the W, NW, & N, which is not typical of a high ozone day in the San Antonio region
- Could be modeled with other regions to reduce costs
- Maybe suitable to represent a stagnate air situation: max hourly average wind speeds were of 4.5, 6.0, 5.2, & 4.3 mph (1999 episode had speeds of 8.1, 6.0, 5.0 & 5.6 mph)

September 6-7, 2003

- Has only 2 exceedance days in the episode
- Could be modeled with other regions to reduce costs (although Austin had only one exceedance that coincides)
- PM 2.5 had an unusually high reading (for San Antonio) on the 7th- 30.82
- Max hourly average wind speeds were 4.9 mph & 5.9 mph respectively

3.5.2 Future Photochemical Modeling Episodes

The eventual selection of a candidate episode ultimately leads to the development of a photochemical model which allows air quality planners to further understand the mechanics of ozone exceedance days and the conditions that typify the occurrence.

The update of the conceptual model with data from 2003 offers two potential episodes in 2003, May 2003 and September 2003. Aside from analysis and comparison of meteorological conditions, air quality planning tools such as the APCA enable a better comprehension of air quality scenarios thus allowing the selection of a transport or a local condition episode.

A comprehensive TexAQS study is going to be conducted in 2004 and 2005 which would provide additional information but also possible new insights of various influences on air quality situations. In the event the San Antonio EAC fails or San Antonio is declared effective nonattainment in 2008, the development of a new photochemical modeling episode would be essential in additional air quality analyses. The September 1999 episode, which was used in the development of the Clean Air Plan, will be out of date in 2008. The episode also only provides control strategy analysis for one type of high ozone event, that event being one of transport.

Chapter 4 – Conclusion

The San Antonio EAC region has successfully maintained steady progress in accomplishing EAC milestones and ensuring proper development of the Clean Air Plan. The Attainment Demonstration for the San Antonio Early Action Compact Regions was successfully developed and submitted to the TCEQ and EPA on March 31, 2004. Successful completion of the milestones included appropriate participation of stakeholders in the air quality planning process, ongoing development and research of potential control strategies, provide for public participation in the development of the Clean Air Plan, and continue technical activities in developing and testing model performance. Accomplishing these milestones allowed efficient development of the Attainment Demonstration with assurances in the validity of its technical data.

The San Antonio EAC region remains compliant with the prescribed milestones as given by the *Protocol for Early Action Compacts Designed to Achieve and Maintain the 8-Hour Ozone Standard.*[12] The region will continue to comply to the milestones as required.

[12] The "Protocol for Early Action Compacts Designed to Achieve and Maintain the 8-Hour Ozone Standard" is available online as http://www.epa.gov/ttn/naaqs/ozone/eac/20020619_eac_protocol.pdf

Appendix A – AACOG Air Quality Outreach Efforts

1. Television

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
News Piece w/ on camera interview	Clean Air Strategy Selection	Dorothy Birch, AACOG Steve Linscomb, WOAI	1/26/2004	General Public
News Piece w/ on camera interview	Clean Air Strategy Selection	Dorothy Birch, AACOG Jason, KSAT	1/26/2004	General Public
News Piece	Clean Air Strategy Selection	Dorothy Birch, AACOG Alicia and Dale, KSAT	1/28/2004	General Public
News Piece w/ on camera interview	Clean Air Plan Workshop on Feb. 4	Dorothy Birch, AACOG KVDA	2/3/2004	General Public
News Piece w/ on camera interview	Clean Air Plan Workshop on Feb. 5	Dorothy Birch, AACOG News 9 San Antonio	2/3/2004	General Public
Earth Matters Segment	Air Quality, Ozone Season Kickoff	Dorothy Birch, AACOG Liza Myer, Keep San Antonio Beautiful Rose Ryan, City of San Antonio Dave Newman, City of San Antonio	2/25/2004	General Public
AACOG Region Segment	Hike & Bike Month, Air Pollution	Al J. Notzon, III, AACOG Dorothy Birch, AACOG Scott Ericksen, MPO	3/2/04 to air during April	General Public
News Piece w/ on camera interview	Final Clean Air Plan Signing	Commissioner Millikin Judge Wolff Dorothy Birch, AACOG WOAI TV	3/24/2004	General Public
News Piece w/ on camera interview	Final Clean Air Plan Signing	Commissioner Millikin Judge Wolff Dorothy Birch, AACOG KENS TV	3/24/2004	General Public
News Piece w/ on camera interview	Final Clean Air Plan Signing	Commissioner Millikin Judge Wolff Dorothy Birch, AACOG KSAT TV	3/24/2004	General Public
News Piece w/ on camera interview	Final Clean Air Plan Signing	Dorothy Birch, AACOG James Lozada, News 9 San Antonio	3/24/2004	General Public
News Piece w/ on camera interview	Ozone Season Kickoff	Dorothy Birch, AACOG News 9 San Antonio	3/27/2004	General Public

1. Television (continued)

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
News Piece	Ozone Season Kickoff	Dorothy Birch, AACOG KENS	3/27/2004	General Public
News Piece	Ozone Season Kickoff	Dorothy Birch, AACOG WOAI	3/27/2004	General Public
News Piece	Ozone Season Kickoff	Dorothy Birch, AACOG Univision	3/27/2004	General Public - Especially Spanish Speakers
News Piece w/ on camera interview	Nonattainment Designations	Dorothy Birch, AACOG Tisha Powell, News 9 San Antonio	4/15/2004	General Public
News Piece w/ on camera interview	Nonattainment Designations	Dorothy Birch, AACOG Brian Sanchez, KABB (Fox News)	4/15/2004	General Public
News Piece w/ on camera interview	Nonattainment Designations	Dorothy Birch, AACOG Joe Conger, KENS	4/15/2004	General Public
News Piece w/ on camera interview	Commute Solutions	Dorothy Birch, AACOG Jillian Palmieri, News 9 San Antonio	5/12/2004	General Public

2. Radio

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
Taped Interview	Air Quality, TERP	Dorothy Birch, AACOG Bud Little, WOAI	1/5/2004	WOAI Listeners
Taped Interview	Clean Air Plan - Seguin to vote on Feb. 3	Dorothy Birch, AACOG Chris, KWED	2/2/2004	KWED Listeners
Taped Interview	Clean Air Plan Workshop on Feb. 3	Dorothy Birch, AACOG David, KTSA	2/2/2004	KTSA Listeners
Taped Interview	Clean Air Plan Workshop on Feb. 4	Peter Bella, AACOG WOAI FM	2/3/2004	WOAI Listeners
Taped Interview	Bexar County Passes Clean Air Strategies	Jay Millikin, AIR Co. Chairman Bud Little, WOAI	2/10/2004	WOAI Listeners
Community Affairs Program	Air Quality, Ozone Season Kickoff	Dorothy Birch, AACOG Kelly Kendall, Cox Radio	Taped 2/11/04 - to air once in Feb. and once in March	Cox Radio Listeners
Taped Interview	Clean Air Plan Approval	Dorothy Birch, AACOG Bud Little, WOAI	2/11/2004	WOAI Listeners

2. Radio (continued)

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
Community Affairs Program	Air Quality, Ozone Season Kickoff	Dorothy Birch, AACOG Megan Bishop, Cox Radio	Taped 3/9/04 - to air 3/21/04	Cox Radio Listeners
News Piece	Final Clean Air Plan Signing	Clear Channel Radio Stations (based on AACOG News Release)	3/25/2004	Clear Channel Stations' Listeners
Taped Soundbytes, Interviews	Final Clean Air Plan Signing	Dorothy Birch, AACOG Jim Forsyth, WOAI Other AIR Co. members and AACOG Staff	3/25/2004	WOAI Listeners
Taped Soundbytes, Interviews	Final Clean Air Plan Signing	Dorothy Birch, AACOG KWED Other AIR Co. members and AACOG Staff	3/25/2004	KTSA Listeners
Taped Soundbytes, Interviews	Final Clean Air Plan Signing	Dorothy Birch, AACOG Michael, KTSA	3/25/2004	KWED Listeners
Taped Interview	Ozone Season Kickoff	Dorothy Birch, AACOG Bud Little, WOAI	3/25/2004	WOAI Listeners
Live Call-In Radio Show	Air Quality, Car Maintenance	Dorothy Birch, AACOG John True, NAPA Auto Parts Show	4/10/2004	KKYX Listeners
Taped Interview	Nonattainment Designation	Dorothy Birch, AACOG Jim Forsyth, WOAI	4/15/2004	WOAI Listeners
Taped Interview	Nonattainment Designation	Dorothy Birch, AACOG Brent Boller, KTSA	4/15/2004	KTSA Listeners
Community Affairs Program	Hike & Bike Month, Clean Air, Bike Buddies	Dorothy Birch, AACOG Scott Ericksen, MPO Kelly Kendall, Cox Radio	4/24/04 and 5/1/04	Cox Radio Listeners
Community Affairs Program	Hike & Bike Month, Clean Air, Bike Buddies, Walking School Bus	Dorothy Birch, AACOG Scott Ericksen, MPO Matari Jones, KSJL (Clear Channel Radio)	5/15/04 and 5/16/05	KSJL Listeners
Taped Interview	Adopt-A-School Bus, New EPA Initiative	Dorothy Birch, AACOG David Gray, EPA PIO Mayor Richard Greene, EPA Region 6 Administrator Michael, Reporter for KTSA 550 AM	5/12/2004	KTSA Listeners

3. Newspaper & Internet

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
News Piece	Anti-pollution measures advised	Christopher Anderson, S.A. Express-News	1/27/2004	General Public - Bexar Co./San Antonio
News Piece	AIR group to discuss air quality control plan	Chris Chase, Seguin Gazette-Enterprise	1/28/2004	General Public - Guadalupe Co./Seguin
News Piece	Tailpipe testing gets thumbs down from advisory committee	Bill O'Connel, Wilson County News	1/28/2004	General Public - Wilson Co./Floresville

3. Newspaper & Internet (continued)

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
News Piece	EPA declines request to toss flawed air-quality data	Bill O'Connel, Wilson County News	1/29/2004	General Public - Wilson Co./Floresville
News Piece	Air panel favors cleaner gasoline	Christopher Anderson, S.A. Express-News	1/29/2004	General Public - Bexar Co./San Antonio
News Piece	Council Gives Nod to Clean Air Plan	KWED, Seguin Daily News	2/4/2004	General Public - Guadalupe Co./Seguin
News Piece	Questions about air-quality monitor's accuracy cause big stink	Bill O'Connel, Wilson County News Data supplied by TPIA info from AACOG	2/4/2004	General Public - Wilson Co./Floresville
News Piece	Seguin council OKs clean air strategies	Peter Bella, AACOG Chris Chase, Seguin Gazette-Enterprise	2/5/2004	General Public - Guadalupe Co./Seguin
News Piece	2 entities sign off on air quality plan	Roger Croteau, S.A. Express-News	2/6/2004	General Public - S.A./Bexar Co.
News Piece	Clean-air plan gets third vote of approval	Brian K. Murphy, Wilson County News	2/11/2004	General Public - Wilson Co./Floresville
News Piece	There's a lot at stake in clean air efforts	Staff Reports, N.B. Herald-Zeitung	2/17/2004	General Public - Comal Co./New Braunfels
Newsletter Piece	Ozone Season Kickoff	Audubon Newsletter Debra Engler, AIR Public Education Com. Dorothy Birch, AACOG	2/25/2004	San Antonio Audubon Society members

3. Newspaper & Internet (continued)

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
News Piece	Clean-air plan gets 2 more nods	Peter Bella, AACOG Dorothy Birch, AACOG Chris Anderson, S.A. Express-News Roger Croteau, S.A. Express-News	2/25/2004	General Public - S.A./Bexar Co.
Newsletter Piece	Ozone Season Kickoff	Dorothy Birch, AACOG Debbie Van Den Berghe, TIAA	3/1/2004	Texas Independent Automotive Assoc. Members
Interview for News Piece	Innovative Clean Air Strategies	Dorothy Birch, AACOG Peter Bella, AACOG Jennifer 8. Lee, New York Times	3/12/2004	National
Community Calendar Posting	Ozone Season Kickoff	Dorothy Birch, AACOG Diane Travis, Soft Rock 101.9 FM	3/15/2004	Soft Rock Listeners
Interview for News Piece	Clean Air Strategies	Dorothy Birch, AACOG Michael Ball, Air Daily	3/16/2004	National
News Piece	Local officials approve clean-air plan that avoids emissions testing	Jay Millikin, AIR Co. Chairman Jerry Needham, San Antonio Express-News	3/24/2004	General Public - S.A./Bexar Co.
News Piece	AACOG gives nod to Clean Air Plan	Commissioner Jay Millikin, AIR Co. Chairman Judge Nelson Wolff, AIR Co. Vice Chairman Bryan Kirk, Seguin Gazette-Enterprise	3/24/2004	General Public - Guadalupe Co./Seguin
Interview for Column	Ozone Season	Dorothy Birch, AACOG Bill Taylor, KENS 5 and Express-News	3/26/2004	General Public - S.A./Bexar Co.
Metro Brief	Ozone Season Kickoff	Dorothy Birch, AACOG San Antonio Express-News Metro Staff	3/27/2004	General Public - S.A./Bexar Co.
News Piece	Ozone Season Kickoff	Dorothy Birch, AACOG La Prensa	?	General Public - S.A./Bexar Co., Especially Spanish Speakers
MPO Newsletter Article	Ozone Season Kickoff, Ozone Season Tips	Dorothy Birch, AACOG Mona Lisa Zertuche, MPO	4/1/2004	MPO Newsletter Readers

3. Newspaper & Internet (continued)

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
News Piece	Clear Skies No More for Millions as Pollution Rule Expands	Dorothy Birch, AACOG Jennifer 8. Lee, New York Times	4/13/2004	Readers Nationwide
News Piece - Internet	Local counties in violation of clean air laws, but no penalties on way	Dorothy Birch, AACOG Jerry Needham, S.A. Express-News	4/15/2004	General Public - S.A./Bexar Co.
News Piece	EPA adds S.A. area to its ozone list	Dorothy Birch, AACOG Jerry Needham, S.A. Express-News	4/16/2004	General Public - S.A./Bexar Co.
News Piece	Break lets area breathe easier on smog issues	Dorothy Birch, AACOG Ron Maloney, N.B. Herald-Zeitung	4/16/2004	General Public - N.B./Comal Co.
News Piece	Wilson County dodges 'dirty air' list released by EPA	Peter Bella, AACOG Bill O'Connell, Wilson County News	4/16/2004	General Public - Floresville/Wilson Co.
News Piece	EPA lists nonattainment areas	Bryan Kirk, Seguin Gazette-Enterprise	4/16/2004	General Public - Seguin/Guadalupe Co.
Newsletter Piece	Idling Cars are Air Pollution's Playthings	Dorothy Birch, AACOG Tiffany Pickens, AACOG	5/1/2004	AACOG Newsletter Subscribers
News Piece	Air Pollution, Ozone Violation	Dorothy Birch, AACOG Michelle Guevara, Rumbo (MexAmerica Media)	4/22/04 (for print in a few months)	General Public - Spanish Readers
News Piece	Region to keep eye on ozone	Peter Bella, AACOG Jerry Needham, S.A. Express-News	4/29/2004	General Public - S.A./Bexar Co.

4. Governmental, Business, or Civic Group Presentations

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
Professional Presentation	Ozone Pollution, Air Quality Health Alerts	Dorothy Birch, AACOG Nurse Schreiber, NISD	1/27/2004	NISD Nurses (62 present)
Civic Group Presentation	Air Quality, Clean Air Strategies	Dorothy Birch, AACOG Marvin Cook, Harmony Hills Optimist Club	1/28/2004	Club Members (11 present)
Neighborhood Association Presentation	Ozone Pollution, Air Quality Health Alerts	Dorothy Birch, AACOG Rachel Cywinski, Highland Park N.A.	2/14/2004	Neighborhood Assoc. Members (28 present)
Professional Presentation	Clean Air Plan Status	Dorothy Birch, AACOG Mike Harris, SAMA Environmental Committee	2/19/2004	Committee Members (5 present)

4. Governmental, Business, or Civic Group Presentations (continued)

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
Professional Presentation	Ozone Pollution, Air Quality Health Alerts, Ozone Season Kickoff	Dorothy Birch, AACOG Mike Koebke, President of S.A. Chapter of the Texas Independent Automotive Association	2/19/2004	TIAA Members (~65 present)
Civic Group Presentation	Ozone Pollution, Air Quality Health Alerts, Ozone Season Kickoff	Dorothy Birch, AACOG Wendy, Olmos Kiwanis Club	3/9/2004	Kiwanis Club Members (25 present)
Civic Group Presentation	Ozone Pollution, Air Quality Health Alerts, Ozone Season Kickoff	Dorothy Birch, AACOG James Halsell, Optimist Club of San Antonio	3/9/2004	Optimist Club Members (~50 present)
Civic Group Presentation	Ozone Pollution, Air Quality Health Alerts, Ozone Season Kickoff	Dorothy Birch, AACOG	3/19/2004	Bexar County Senior Citizens Advisory Council
Civic Group Presentation	Ozone Pollution, Air Quality Health Alerts, Ozone Season Kickoff	Dorothy Birch, AACOG Randy Pollock, Alamo Kiwanis Club	3/25/2004	Kiwanis Club Members (40 present)
Civic Group Presentation	Ozone Pollution, Air Quality Health Alerts, Ozone Season Kickoff	Heather Willden, AACOG Jenny Funk, Alzheimer's Association	4/5/2004	Alzheimer's Association Members (3 people)
Civic Group Presentation	Ozone Pollution, Air Quality Health Alerts, Ozone Season Kickoff	Dorothy Birch, AACOG Bob Weaver, West San Antonio Rotary Club	4/6/2004	West San Antonio Rotary Club Members (~25)
Business Presentation	Ozone Pollution, Air Quality Health Alerts, Air Quality Index	Dorothy Birch, AACOG Judson ISD Nurses	4/13/2004	Judson ISD Nurses (~10 present)
Civic Group Presentation	Ozone Pollution, Air Quality Health Alerts, Air Quality Index	Heather Willden, AACOG Dorothy Birch, AACOG Guadalupe, Foster Grandparents Association	4/15/2004	Foster Grandparents (~5 present)
Civic Group Presentation	Ozone Pollution, Air Quality Health Alerts, Air Quality Index	Dorothy Birch, AACOG Shell McLaine, Better Breathers	5/6/2004	Better Breathers Members (~20 present)
Business Presentation	Clean Air Plan Status	Dorothy Birch, AACOG Michele Feenstra & Mike Harris, SAMA Environmental Subcommittee	5/10/2004	SAMA Environmental Committee Members (~6 present)

4. Governmental, Business, or Civic Group Presentations (continued)

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
Business Presentation	Commute Solutions & Best Workplaces for Commuters	Dorothy Birch, AACOG Al J. Notzon, III, AACOG Patty Classy, Greater San Antonio Chamber of Commerce	5/13/2004	Ad Hoc Air Quality Committee of the Greater San Antonio Chamber of Commerce (~ 8 present)

5. School -Related Education

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
Persuasive Poster Lesson	Reducing ozone pollution	Dorothy Birch, AACOG Daryn Polanco, Huebner Elementary School	1/28/2004	4th Graders (11 students)
Persuasive Poster Lesson	Reducing ozone pollution	Dorothy Birch, AACOG Daryn Polanco, Huebner Elementary School	1/29/2004	5th Graders (22 students)
Pizza Party & Games for Poster Contest Winners	Reducing ozone pollution	Dorothy Birch, AACOG Tim Jones, Gillette Elementary School	4/13/2004	4th Grade Art & 5th Grade Mentors (10 students)
Pizza Party & Games for Poster Contest Winners	Reducing ozone pollution	Dorothy Birch, AACOG Daryn Polanco, Huebner Elementary School	4/14/2004	4th Grade Students (13 students)
Pizza Party & Games for Poster Contest Winners	Reducing ozone pollution	Dorothy Birch, AACOG Daryn Polanco, Huebner Elementary School	4/15/2004	5th Grade Students (23 students)
Westwood Terrace Field Day	Air pollution	Heather Willden, AACOG Jessica Lansing, Westwood Terrace E.S.	5/7/2004	Students K-5 (~320 students)
Locke Hill Elementary Career Day	Air pollution	Donna Hessong, AACOG Maggie Brehm, Lockehill Selma E.S.	5/13/04	Students 1-5 (~185)
Educational Table	Air pollution and how it affects water pollution	Dorothy Birch, AACOG Greg Wukasch, SAWS	5/14/04	5th Grade Students (~170 students)
Interactive Presentation/Lessons	Air pollution, reducing ozone pollution	Dorothy Birch, AACOG Nancy Stamatakos, Rahe Primary	5/21/04	2nd Grade Students (~90 present)

6. Events & Public Meetings

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
TERP Workshop	Texas Emission Reduction Plan	Dorothy Birch, AACOG Steve Dayton, TCEQ	1/21/2004	Owners of heavy duty diesel equipment.
Clean Air Plan Workshop	Clean Air Strategies	Dorothy Birch, AACOG Peter Bella, AACOG	2/3/2004	General Public
Arbor Day Event	1st Annual San Antonio Arbor Day	Dorothy Birch, AACOG Jenna Terrez, Alamo Forest Partnership, CPS	2/7/2004	General Public
Leon Valley Earthwise Living Day	Air Quality and Solid Waste Shared Table	Dorothy Birch, AACOG Heather Willden, AACOG Georgia Zannaras, AACOG	2/28/2004	General Public
St. Philip's Fuel Cells Conference	Air Quality and Commute Solutions	Dorothy Birch, AACOG Heather Willden, AACOG	3/10-12/04	Fuel Cell Industry & Advocates
Basura Bash	Air Quality Table	Dorothy Birch, AACOG Karen B. Kubena, SARA	3/20/2004	General Public, kids
Bexar County "Do it When You Can" Commute Solutions Kickoff	Air Quality and Commute Solutions Table - Courthouse	Dorothy Birch, AACOG LaJuana Hill Zanoni, Bexar County	3/23/2004	Bexar County Employees, General Public
Final Clean Air Plan Signing (AIR Committee Meeting)	Official Signing of the Clean Air Plan - our region's local revision's to the State Implementation Plan	Dorothy Birch, AACOG (media mgmt.) Peter Bella, AACOG Air Improvement Resources Committee	3/24/2004	General Public invited, larger audience via major media
Bexar County "Do it When You Can" Commute Solutions Kickoff	Air Quality and Commute Solutions Table - Tejeda Complex	Dorothy Birch, AACOG LaJuana Hill Zanoni, Bexar County	3/24/2004	Bexar County Employees, General Public
Bexar County "Do it When You Can" Commute Solutions Kickoff	Air Quality and Commute Solutions Table - Vista Verde	Dorothy Birch, AACOG LaJuana Hill Zanoni, Bexar County	3/26/2004	Bexar County Employees, General Public
Clean Cities Stakeholders Meeting	Ozone Season Kickoff, Anti-Idle Program	Dorothy Birch, AACOG John Quebe, AACOG - Clean Cities	3/26/2004	Clean Cities Stakeholders

6. Events & Public Meetings (continued)

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
Ozone Season Kickoff	All Air Quality and Commute Solutions-Related Subjects	Dorothy Birch, AACOG Heather Willden, AACOG AIR Public Education Committee	3/27/2004	General Public
Bexar County "Do it When You Can" Commute Solutions Kickoff	Air Quality and Commute Solutions Table - Justice Center	Dorothy Birch, AACOG LaJuana Hill Zanoni, Bexar County	3/29/2004	Bexar County Employees, General Public
Bexar County "Do it When You Can" Commute Solutions Kickoff	Air Quality and Commute Solutions Table - Adult Probation Office	Dorothy Birch, AACOG LaJuana Hill Zanoni, Bexar County	3/30/2004	Bexar County Employees, General Public
St. Philip's Earth Day Event	Air Quality and Commute Solutions Table	Heather Willden, AACOG	4/14/2004	St. Philip's College Students, Faculty & Staff
Earth Day at Woodlawn Lake	Air Quality and Commute Solutions and Recycling/Composting Table	Heather Willden, AACOG Dorothy Birch, AACOG Georgia Zannaras, AACOG Joe Alderete, Earth Day Organizing Committee	4/17/2004	General Public
Earth Day at Kelly USA	Air Quality and Commute Solutions Table	Heather Willden, AACOG	4/22/2004	Kelly USA Employees
Hispanic Religious Partnership Health Fair	Air Quality Table	Dorothy Birch, AACOG Lorraine, Hispanic Religious Partnership	5/4/2004	General Public
Hike & Bike to Work Rally	Commute Solutions Table	Heather Willden, AACOG Dorothy Birch, AACOG Scott Ericksen, MPO	5/7/2004	General Public, especially walkers and cyclists
Hike & Bike Fest	Commute Solutions Table	Heather Willden, AACOG Dorothy Birch, AACOG Scott Ericksen, MPO	5/8/2004	General Public, especially walkers and cyclists
Adopt-A-School Bus Kickoff Event	Presentations on AQ, CS and Adopt-A-School Bus	Dorothy Birch, AACOG Heather Willden, AACOG John Quebe, AACOG	5/12/2004	ISD Representatives, Industry Representatives
SAWS Waterfest Family Day	Air Quality & Commute Solutions Table	Dorothy Birch, AACOG Heather Willden, AACOG Greg Wukasch, SAWS	5/15/2004	General Public

6. Events & Public Meetings (continued)

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
SAMA Trade Fair	Air Quality & Commute Solutions Table	Dorothy Birch, AACOG Heather Willden, AACOG Mike Harris, SAMA	5/20/2004	General Public

7. News Items Issued

Type of Outreach	Subject	Contact Persons & Organizations Involved	Date	Target Audience
PSA	Commute Solutions	Dorothy Birch, AACOG	1/7/2004	General Public
News Brief	Clean Air Plan Workshop - January 2004	Dorothy Birch, AACOG	1/27/2004 & 2/2/04	General Public
News Brief	1st Annual Arbor Day Celebration in San Antonio	Dorothy Birch, AACOG Jenna Terrez, Alamo Forest Partnership	2/4/04 & 2/6/04	General Public
PSA	Car Care & Air Quality	Dorothy Birch, AACOG	2/3/2004	General Public
PSA	Ozone Season Kickoff	Dorothy Birch, AACOG	3/5/2004	General Public
News Release	AIR Committee to Sign Final Clean Air Plan	Dorothy Birch, AACOG	3/22/2004	General Public
News Brief	Ozone Season Kickoff	Dorothy Birch, AACOG	3/24/2004	General Public
News Release	South Texas Asthma Coalition to participate in Ozone Season Kickoff	Dorothy Birch, AACOG Autum Dawn Galbreath, MD, STAC	3/24/2004	General Public
PSA	Take Steps At Lunchtime For Cleaner Air And A Slimmer Figure	Dorothy Birch, AACOG	4/6/2004	General Public
Media Advisory	EPA Administrator to Announce Clean Air “Nonattainment” Areas Today	Dorothy Birch, AACOG	4/15/2004	General Public
News Release	Walking School Bus (with Hike & Bike Month media kit)	Dorothy Birch, AACOG	4/28/2004	General Public
News Release	ALA State of the Air Report	Dorothy Birch, AACOG	4/30/2004	General Public
PSA	Pair Up to Cut Gas Costs in Half	Dorothy Birch, AACOG	5/6/2004	General Public
PSA	Evening Errands: Fill Up the Tank, Clean Up the Air	Dorothy Birch, AACOG	6/1/2004	General Public

Appendix B - Process Evaluation - Calendar Year 2004

Informational or Promotional Items	Total Distributed
AQHA Sign Up Forms	1488
How's the Air Out There? (AQI)	952
Come Talk to Us	28
Do Your Share For Cleaner Air	1204
El Smog—A Quien Perjudica?	22
Guia de Calidad del Aire para el Ozono	50
Air, Water, Land: Find out what you can!	409
Tex & Dot Coloring Book	50
Air Pollution Gremlins Poster	354
Car Care 101 Booklet	1294
Key Ring w/ Tire Pressure Gauge	737
SA Area Bicycle Maps	366
DCAT Notepads	1076
DCAT Pens	153
DCAT Magnets	1010
DCAT Tattoos	458
Clean Air Pencils	692
Clean Air Magnets	1212
Commute Solutions Pens	1301
Commute Solutions Lanyards	12
Commute Solutions Lunch Sacks	13
AQHA Signs	342
Kids Clean Up The Air Sign	302
Event Flyers	1671
AACOG Brochure	91
DCB Business Card	138
CS Squeezy Car	73
CS Travel Mug	69
CS Carpool Sign Up Form	108
VIA Bus & Bike Brochures	12
CARE Brochures	11
DCAT Coloring Book	821
DCAT Bookmarks	1140
Connector (SchoolPool Newsletter)	393
Other Items Distributed (AACOG Brochures, Event Flyers, etc.)	1268

TOTAL ITEMS DISTRIBUTED	**19320**
ESTIMATED TOTAL INDIVIDUALS REACHED	**9085**
TOTAL STAFF TIME SPENT (Hours)	**358.83**